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VOLUME 25 NUMBER 5 . JANUARY

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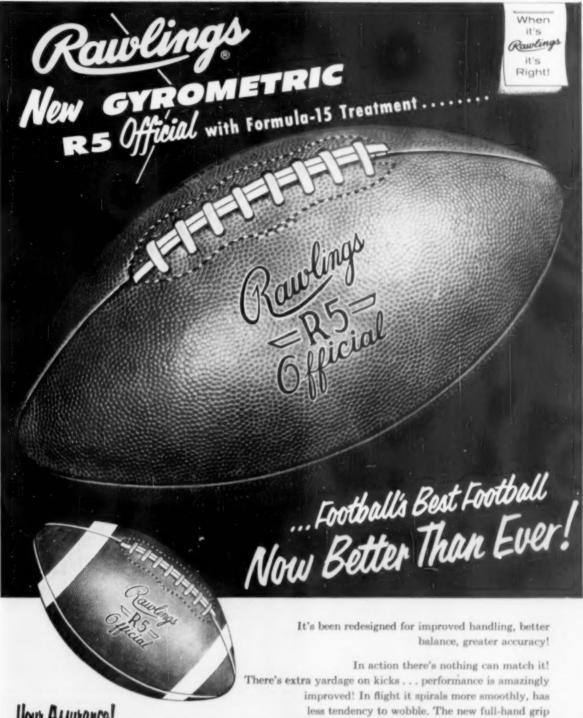
SCHOLASTIC COACH IS ISSUED MONTHLY TEN TIMES DURING THE ACADEMIC YEAR (SEPTEMBER THROUGH JUNE) BY SCHOLASTIC CORPORATION, M. R. ROBINSON, PRESIDENT, PUBLISHERS OF SCHOLASTIC MAGAZINES FOR HIGH SCHOOL STUDENTS.

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Somewhere over the rainbow

OPE all you fellows had a dandy Christmas and a bouncy New Year's, and that 1956 will bring you all the little things you've always longed for—like a \$750,000 gym, a 7' center, and a couple of 220-pound tackles who can knock down trees with their bare heads.

To brighten up your new year, we're presenting you with the 18th edition of our annual Building & Equipment Issue. Chock full of provocative ideas on the planning of indoor and outdoor facilities, it ought to furnish the answers to a lot of your athletic-facility problems.

We know that most coaches aren't equipped to cope with such specialized posers, and we hope this issue lends the helping hand you need. That's the specific purpose of our January number and—judging by your letters—we're apparently right on target.

STRICTLY BIG LEAGUE

WALKING down the street the other day, we noticed a fellow standing on the curb with a tin cup in his hand reading "Give to the Lighthouse." He was an ordinary looking guy, about 5 ft. 10 in., compactly built, with thinning light brown hair and steely blue eyes.

Something about him looked familiar, and we glanced at him again. Then we did a double take. It was Wes Westrum, catcher for the N. Y. Giants! So we walked over and introduced ourselves.

He was the nicest kind of guy you could hope to meet. After talking baseball for a while, we asked him what he was doing with a cup in his hands,

"The Lighthouse," he said, "is the greatest charity organization in the world, What a job it does for the blind!"

Then Wes grinned. "If I can't help my manager with a bat in my hands, at least I can do something

for humanity with a cup in my hands."

That, friends, is what we call a real BIG leaguer!

TRAINER OF THE YEAR

THE trainer of the year, at least in our book, is Eddie Prelaz of Marshall College. For two years he carried a mouth wedge in his bag without having the slightest use for it. But still, week after week, he kept packing it in with his tape, bandages, and first aid equipment.

Then on October 26, it happened. An opposing blocker drove his forearm into Halfback Dyke Six's mouth. The halfback's jaws locked and he swallowed his tongue. He lay there suffocating to death—until Eddie raced onto the scene.

Eddie instantly reached for his wedge and pried open the boy's mouth. He then inserted his fore-finger and flicked out the kid's tongue. Result: One life saved.

What ran through his mind when he was doing this? "I just kept praying to God," he says.

Well, God is always on the side of the right—and the intelligently prepared.

RECORDS ALL SUBLIME

WHENEVER our football historians want to pinpoint the consummate in high school coaching records, they always haul out Paul Brown's career mark. And small wonder. That Brown record is truly an eye-popper. It reads 97-8-3—which comes to a whopping .924 winning percentage!

That borders on the supernatural. And yet it isn't the best mark in the schoolboy ranks. In fact, Paul's successor at Massillon, Chuck Mather, chalked up an even more impressive record before moving up to the college field two years ago.

Chuck racked up a career mark of 101-7-2, for a winning percentage of .935! And if you think that's incredible, consider this: There are two coaches currently operating within an Otto Graham toss of each other who have it over both Brown and Mather! We refer to Clary Anderson of Montclair (N.J.) H.S. and Joe Coviello of Memorial H.S., West New York, N.J.

Clary owns a career record of 100-6-1, for a .943 winning average; while Joe shows an 89-4-1 mark, for a winning percentage of .957! Broth-errr!

As far as we know, these are the all-time records for coaches with at least 10 years of experience in Class A competition. If any of you fellows know of any superior marks, please shoot 'em along to us. We'll be happy to posteritize them in this department.

MOLDY FIG-ISM

THE bleat most calculated to drive us to the nearest booby hatch is the one about the players of today not comparing to those of 20 or 30 years ago. Every time we hear some fossil dredge that one up from the depths of his ignorance and prejudice, we feel like grabbing a ball bat and flattening it against his pate.

We stoutly refuse to concede any truth in this sort of blatting. To us, athletes are better than ever and are getting better all the time. Proof? We refer you to our editorial, "A Vote for the 'Moderns,'" back in June 1954.

The absurdity of such blatherskite is amusingly exemplified in *Greatest Collier's Sports Stories*, One of the selections in this book is an All-American Baseball Team picked by Billy Sunday for the October 1908 issue of *Collier's*.

Billy's 1908 all-stars read like a preview of the Hall of Fame. Look whom he had on his team—Ty Cobb, Christy Mathewson, Walter

(Continued on page 58)

honored, 1955 A.I.A. "Award of Merit"

John M. Reeves Student John M. Reeves Student Union Building, Cen-tenary Junior College, Hackettstown, N. J. Architect: Jan Hird Pohorns, New York, N.Y. Gen'l Contractor: Fred J. Brotherton, Inc., Hackensack, N. J. Ac-corded Award of Merit for excellence ad design for excellence of design by American Institute of Architects, 1955.



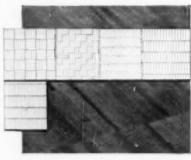


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Athletic Field De Luxe!

By DICK LACEY

Track Coach, Pelham (N. Y.) High School

WHEN Pelham Memorial High School dedicated its new \$350,000 athletic field and field house last October, it displayed to the public one of the finest and most complete scholastic sports layouts in the New York area.

Furthermore, it provided an object lesson in how a school can overcome two of the most commonly encountered obstacles to athletic field construction:

 A site which presented tremendous problems in drainage and building; and

2. A public which, if not actually hostile to such a project, had been for years apathetic, to say the least, and which had actually voted down by an overwhelming margin a similar but less expensive plan only a year before the present blue-prints were approved!

To understand just how much the new Parkway Field, as it is known, means to the coaches and athletes of Pelham High—and to a lesser extent their rooters—it should be said that, incredible as it seems in a community which ranks as one of the wealthiest for its size in the nation, Pelham had for 20 years played practically all of its boys' outdoor athletic contests and held most of its practice sessions on fields rented for the occasions from the neighboring city of Mount Vernon.

This condition stemmed from the fact that, with increased enrollment and usage, the original small athletic field adjoining the school had become nothing more than a dirt playground unfit and unsafe for varsity sports and almost as unsuitable even for intramurals.

The area had, when first built, contained tennis courts and a fifth-mile running track. But, as the high school building was enlarged between 1928 and 1933, these were removed, leaving nothing but a hard, rocky, undersized "field" on which grass refused to grow despite all efforts and expense.

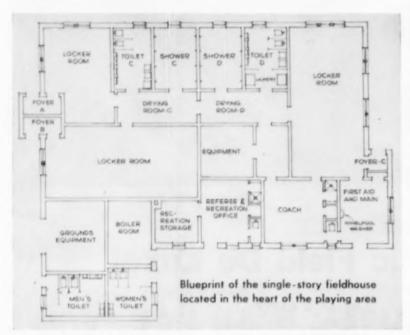
And so, since the last football game was played on the old field in 1934, the Pelicans have had no real home gridiron, track or diamond of their own. Even now, few local residents realize how close Pelham came to being forced to drop these sports. Had it not been for the cooperation of the Mount Vernon Recreation Commission, well...

Since 1934, sporadic attempts were made to develop a plan which would be acceptable to the tax-payers, but never could a feeling of real urgency be developed in the community; and, too, few sites were available. Pelham is almost entirely built up, and there just wasn't any really suitable tract to be had.

Now, at long last, Pelham has all it has ever hoped for and even more; for here is what Parkway Field comprises:

- A football game field surrounded by a quarter-mile running track.
- Large football practice fields.
 Hardball and softball diamonds.





An 85' by 70' one-story structure, the slim, trim \$80,000 fieldhouse houses three large locker rooms and two shower rooms, a coaches' office, a first-aid and trainer's room, a drying room, and a storage room. When used for football games, one half of the building may be shut off from the other so that both toams may have absolute privacy.

An elementary school playfield which can also be used for girls' field hockey, soccer or other games.

6. A parking lot.

 A picnic area large enough to be used in conjunction with the rest of the fields as a cross-country course.

8. A field house which contains locker rooms, showers, coaches' quarters, first aid and nurses' rooms, storage space, public rest rooms, facilities for washing and drying equipment, and other outstanding facilities.

As recently as November 1952, it appeared that any hope the school might have entertained of finally getting its sorely needed athletic facilities had been snuffed out once and for all.

Early that fall, the board of education came forward with a plan to establish a varsity sports field at one of the elementary schools. The project looked fairly good on paper, but it had two major defects: it was far away from the high school, and it was in the heart of a residential area.

Add to these obstacles the fact that there was little advance publicity and practically no attempt at real promotion of the project, and it is easy to understand why at a referendum on November 17 of that year, the board's plan was defeated by a 5 to 1 margin in what was up to that date the largest outpouring of school taxpayers in the town's history.

This looked like the finish. But the school board wisely decided that the need for athletic facilities was so dire that it simply couldn't afford to give up the fight. Sensibly, however, it also concluded that it couldn't undertake the project alone as it had done in the past.

With this in mind, the board in February 1953 took a step which might well serve as a guide to other schools which find themselves bucking a reluctant public—if you can't beat 'em, join 'em! A citizen's committee was formed to work in an advisory capacity with the board. This group comprised 43 men and women of the community, representing all the leading organizations in town as well as every geographical sector.

Included in the roster were engineers, landscape men, advertising and promotion executives, financial experts, salesmen; in other words, the type of citizens who would be best qualified not only to draw up a suitable plan but to sell it to the public at large.

The committee worked hard all through that spring and summer, and by September had come up with the most feasible and attractive plan yet proposed. Working closely together, the committee and the board ironed out the rough spots and soon had blue prints which the board officially approved.

Now began an intensive promotion campaign, something which had been almost completely lacking in previous attempts. A sub-committee of the citizen's group, headed by top advertising and promotion experts, undertook to educate the community in understanding the need for the new field. They were assisted in their promotion by organizations in town like the P.T.A. and Men's Club.

Speakers outlined the project at meetings of every group in the community. A tremendous portable display of pictures, blue prints, charts, and graphs was put together and shown wherever people gathered together.

Probably never before had the entire community been so well informed on a local issue. On October 22, a public information meeting drew a capacity crowd to the high school auditorium; and on October 29, 1953, the board of education opened its polls to a referendum on the proposed \$350,000 bond issue.

So effective had been the promotional campaign that the largest turnout of voters in the history of the school district passed the bond issue by a resounding margin of 6 to 1. Within a matter of weeks, construction began.

(Continued on page 50)

Pelham's new track is one of the best in the East

ROM rags to riches might well be the theme of Pelham (N. Y.) Memorial High School's new track and field facilities, which will be used for the first time during the coming outdoor season.

For 23 years, the Pelicans had no track of their own, and had to conduct their practice sessions (and hold what few "home" meets they were able to arrange) either at a nearby field owned by the City of Mount Vernon or on the cinderpaths of cooperative neighboring schools. Now, Pelham finds itself at the other extreme, proud owner of one of the finest track and field set-ups in the East.

The track cost \$13,000 and is part of the new \$350,000 sports field recently dedicated by the board of education. It boasts, among other advantages, two features seldom found on scholastic cinderpaths, at least in the East.

One is its extreme width. The track measures 24 feet from curb to curb all the way around. This means, of course, that it can accomodate eight 3-foot lanes or six 4-foot strips for its entire circumference. This feature will, naturally, make it possible to stage big championship and relay meets with great facility.

The other noteworthy refinement is the concrete curbing used on both the inner and outer perimeters of the track. Although the vast majority of scholastic running strips utilize wood curbing, Pelham decided to put in concrete when a survey showed that all the finest tracks (where Olympic Games and National Championships have been held, for example) insisted on concrete.

This concrete curbing is laid in sections 15 feet long by 20 inches deep, with expansion joints at the connections. The beveled-edged top of the curbing is the regulation two inches above the surface of the track.

Under the bed of the track itself, tile drains are placed at seven foot intervals. These are pitched slightly toward Hutchinson Creek, a small river running along one side of, and slightly below the level of, the field.

Success of this drainage system is attested by the fact that, even after the record rains of last August and October, the track had very little standing water on it and was still firm.

The stabilizing fill of the track bed was a six-inch layer of mixed slag screenings and crushed stone, one and a half to two inches in diameter. This was pitched slightly toward the inside curb and was rolled with a two-ton roller before the placement of subsequent layers.

Next came a four-inch stratum of smaller "ordinary run" cinders, also rolled down well. The final layer consists of four inches of cleanwashed steam cinders passed through a half-inch screen and mixed with about 20% red Jersey clay.

Because of the geography and size of the site, it was regrettably impossible to provide for a 220-yard straightaway. There is, however, a straightaway of sufficient length to accommodate the standard high school 180-yard low hurdle event.

It is, consequently, felt that lack of a full 220 straight will prove no great disadvantage in that the track is wide enough to permit as many as eight furlong competitors to race in lanes. After all, the 200 meters in the Olympic Games is always run around a curve.

The 100-yard dash can be run on the shorter straightaway in front of the stands.

The laying of the track was completed late in the fall of 1954; but, wisely as things turned out, the cinderpath wasn't used at all during the 1955 season. The grass on the infield wasn't well established and other parts of the project weren't completed. So no one was permitted on the field.

Last spring this seemed like a hardship to the track team, which had waited so long for a running surface of its own. However, it proved to be a beneficial step, for it permitted the track to settle and become firmer, and allowed more work to be done on it.

Late last summer, spots on the track which had settled were filled in, the entire surface was disced lightly, another fine layer of clay and small cinders was applied, and rolling was done.

The result is that the track now looks like a seasoned cinderpath and it will, undoubtedly, be far faster and better in every way this spring than if it had been used last year.

The field event facilities are also exceptional. At one end of the infield is the high jump pit with a semi-circular, skimmed apron 60 feet in radius. This take-off surface has an 18-inch cinder base topped by a 4-inch layer of clay with some very fine cinders mixed in.

Our high jump set-up is as fine a one as this writer has seen—com-(Continued on page 53)



Bird's-eye view of the track, with the fieldhouse and skimmed high jump apron in the background. Outstanding features are its extreme width (24'), concrete curbing, and dual runways for broad jump and pole vault.

By BOBBY GUNN

Trainer, Brazosport High School Freeport, Texas

THE HIGH SCHOOL

A view of two fine Texan plants that

ALL schools that allow their students to engage in inter-scholastic athletics should have a training room as part of their athletic plant. It needn't be elaborate, with many costly machines, and it needn't be spacious. But it must be clean and orderly.

It costs nothing but a little time and work to keep your training room neat, with every item having a place and being in that place. A little painting and cleaning will do wonders with most any room available to your fieldhouse or gymnasium area.

At Brazosport, we were very fortunate to be given a room 15' by 30' with an adjoining closet 6' by 12' for storage. The room was part of the boys' dressing area in the senior high school building, which was new at the time.

School electricians installed 10 double wall plugs with wiring sufficient to carry 220 volts, and with ground attachments on each plug. The school plumber installed a hot and cold water connection and drain plug for the whirlpool, and the

school carpenters built shelves for the storage closet.

Last, but certainly not least, the school carpenters built a very nice taping table, a medicine cabinet with three large drawers, and six treatment tables. A desk, filing cabinet, two small tables, and five chairs were obtained from the school district warehouse, and we were in business.

The athletic department already had a fine whirlpool, two double element infra-red lamps, a 7' double door metal cabinet with shelves, and three height and weight scales in the fieldhouse adjacent to the football fields. The whirlpool and infra-red lamps were moved into the main training room.

A small room in the fieldhouse was set up as an emergency room, with two treatment tables, the large metal cabinet for storage of supplies, a soft drink box (donated by a used-furniture store) for ice, and a small table for tuf-skin bottles, dextrotabs, salt tablets, and electric clippers

A set of scales was put in both "A" and "B" dressing rooms, with weight charts tacked to the wall alongside each. Powder bath boxes were also put in each dressing room.

In our main training room at present, we have one whirlpool hydrotherapy tank, one Medcotronic muscle stimulation machine, one shortwave diathermy machine, two dual Zoalite infra-red lamps, one exercise bicycle, two sets of weighted boots, one ankle exerciser, and dumbbells for shoulder exercises.

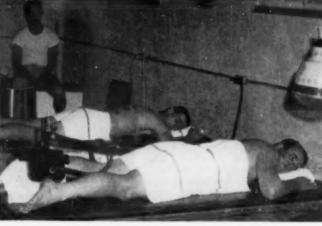
The furniture in the room consists of one desk and chair, a four-drawer file cabinet, one taping table, four treatment tables, two leg-elevation

(Continued on page 46)



View of Brazosport room showing exercise bicycle, anatomical charts, and taping table (front) with easy-toreach materials directly underneath.

Training room in action: athlete in foreground is getting diathermy treatment; in center, medcolator treatment; and at rear, whirlpool bath treatment.



By BILL DAYTON

Trainer, Odessa High School Odessa, Texas

TRAINING ROOM

spell d-r-e-a-m to the schoolboy trainer

THE far-sighted members of Odessa's school board have always believed in catering to the needs of the students, both in the classroom and on the athletic fields.

They've focused an enlightened eye on the training phase of athletics, and as a result the training room has become an integral part of our high school program. The Odessa training room is now one of the finest schoolboy plants in the land. Few high schools can match it, and it compares favorably with most college plants.

The physical aspect of our training room is truly superb. Located under the fieldhouse, close to the dressing quarters and practice fields, the room is 45' long by 20' wide and is constructed of tile—making for simple maintenance. The floor is surfaced with an asphalt tile which

not only is easily cleaned but lends a highly attractive appearance.

Besides being heated for cold weather, the room is cooled for that West Texas heat by means of a portable air conditioner. Numerous windows provide lots of sunlight and ventilation, and the room is also equipped with many electric outlets plus hot and cold running water with adequate drainage.

Available for Odessa athletes are five treatment tables and a taping table. A whirlpool bath is available for hydrotherapy, and three infrared lamps and one diathermy machine are used for the application of dry heat. A portable sine wave machine is included in the electrotherapy department.

Our taping table is 30" high, 36" wide, and 7' long. When the athlete sits down on it, his ankles come to

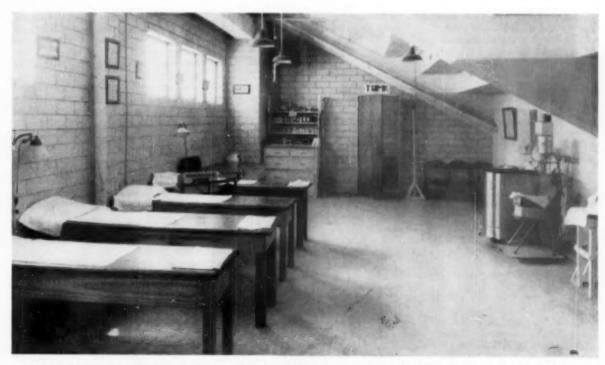
just the right height for taping or wrapping. This makes for speed in getting the players out to the field. We use the regular tables for treatments only. Hence, they can be used for this purpose at the same time you're taping.

The taping table is located right beside our medication cabinet. The trainer can thus reach for any article he needs, which saves a lot of time in caring for the athlete. This set-up puts the heart of the training room near the door, an arrangement which makes for easy access and smooth efficiency. The players can be grouped (for taping) without disturbing others who are getting treatments

We work on a first come, first served basis. The quicker the athletes come to the training room, the quicker they get out.

The five treatment tables are regulation in size, being 30" high, 70" long, and 2' wide. Padded and covered with a red plastic material, which is easily cleaned and steri-

(Continued on page 44)



Located under the fieldhouse, the superb Odessa plant is 45' long by 20' wide and is constructed of tile.



Overhead mechanic on tumbler doing a back handspring.



Overhead twisting belt mechanic on tramp.

Safety First in the Gym

SEVERAL basic safety principles must be incorporated into the instructional program of both beginning and advanced gymnasts:

 A performer cannot think of his personal safety and the difficulty of the stunt at the same time.

Safeness must be assured during preliminary learning.

3. A feeling of confidence should be instilled in the performer, but not a false confidence. Safeness breeds self-confidence and should be constantly practiced. The feeling of sureness and confidence makes for consistency.

4. All danger cannot be removed from gymnastics. There'll always be injuries. But the incidence can be reduced to a minimum by a safe and sane approach.

The gymnasium and the apparatus are inanimate. Therefore, the only persons to blame for accidents or injuries are those arranging the gymnastics area and the apparatus—the coach or instructor, the "spotters," and the performers themselves.

The area should be sufficiently large to permit maximum distances between the apparatus. A clean, well - ventilated, and sufficiently lighted area is necessary for a sound mental, physical, and hygienic approach to gymnastics. For example,

a high bar on the wall lends a feeling of claustrophobia, while a dark stuffy gym promotes depression and unsanitary areas promote disease.

The atmosphere surrounding the gymnasts contribute much that can only be measured in attitudes.

The Tumbling Area. Mats are essential to prevent bruises and breaks. Recommended for general elementary tumbling are 5' or 6' x 20' mats, 3" thick. A parallel arrangement permits lateral and longitudinal use during class.

Thick mattress-like pads are recommended for advanced stunts. To be appreciated, an experience must be pleasant; and these thick, soft, protective, canvas - covered mattresses serve excellently.

Recommended for extended routine work is a 6' x 60' pad whose ends and sides are clear of obstruction. A net or canvas separation will help keep the basketballs from bouncing through the tumbling area.

The area to be used for balancing practice can be established by a wrestling mat. All four sides can be used in a "square" class arrangement. However, the use of several 6' x 20' mats pulled together is quite satisfactory.

Again, this area shouldn't be exposed to flying balls and other obstacles. The Trampoline. Perhaps the safest approach to the establishment of an area for trampolining would be a gymnasium with a hole in the floor. Actually, if a trampoline had a flush floor surface surrounding the bed or the frame, the danger of falling off would be eliminated. No frame would be needed—just the bed attached over the pit or opening in the floor.

The next best approach seems to be raising the floor, or the equivalent, to the height of the frame. This can be done by surrounding the trampoline with padded tables so that the performers can fall on to them.

In lieu of either of these "dream" layouts, it's wise to select a trampoline with heavy padded frames. These are the safest and most practical devices.

The use of a rope net or apron extending from the trampoline to the ceiling removes the necessity of spotters at the ends of the device. Though this has never been used at Iowa, it is strongly recommended.

The Rings (Still and Flying). Practically speaking, rings are usually suspended over tumbling mats for economy. It limits the tumbling time, but is otherwise satisfactory.

Extra mats should be placed in the middle of the swinging area or

By DICK HOLZAEPFEL, Gymnastics Coach, University of Iowa

directly under the still ring area and at the ends of the swing or arc. These are the spots for stunt execution and are thus danger points.

The use of the canvas-covered mattress at the ends of the swinging arc is highly recommended. It should be remembered, however, that more and more protective devices tend to encourage chances or risks. This psychological phenomenon is reported as a point of interest and attention, not as a warning against extensive safety measures.

A swivel ring mount prevents the rings from twisting out of the grasp, while steel ropes or cables are suggested as suspensories for the straps and rings.

The Horizontal Bar. This apparatus is used either in high form or low form. The floor inserts and the cable mountings are the only parts which need attention, unless the bar is the adjustable type in which case the adjustments will also need checking.

The bar should be kept clean at all times. A light cleaning action with emery cloth should be used, with the stroking in a horizontal direction to maintain the imperceptible grooves for grip safety.

The mats for the high bar should surround the entire area, not run only between the uprights. A minimum of 15' in front and back of the

bar is required for safety on such stunts as fly-aways and cut-aways.

The Parallel Bars should be worked at three different heightsthe low or foot-high parallels; the medium height, the lowest to which an official parallel bar can be lowered; and the 5'51/2" competitive height.

The parallel bar that can be adjusted in width is recommended for all age brackets. This adjustment will permit the apparatus to be used by the very young as well as the mature student.

The padding should be all-encircling and close to the bars. The type of mat which has four apertures to fit over the legs of the bars is the most satisfactory. The floor within the actual parallel bar area should be most carefully covered, as well as the immediate ends and sides of the apparatus. The mats should cover a 5' area on all sides of the parallel bars,

The Side Horse. The smoothly leathered well-padded side horse is definitely to be preferred over the linoleum or plastic covered apparatus. Leather seems to stand up better over a longer period of time.

The side horse whose height can be adjusted is also to be preferred. Again, height adjustability will permit many different age brackets to use the same apparatus.

The pommels should be of good steel covered by leather well fastened to the horse. The wooden pommel has also worked out satisfactorily

The base of the horse should be well fastened to the body of the apparatus, since the connecting nuts and bolts are prone to become loose. Also, see that the base doesn't rock upon the flood. Some form of shim or the placement of the horse upon a mat will often remedy this condition

The surrounding mats should fit snugly on all parts of the horse and extend out to cover at least 5' of the surrounding area. No overlapping mats should be tolerated. If possible, the mats under and surrounding all apparatus should be 3" thick. Continuous landing upon them will, over the years, gradually reduce the three inches to something closer to two inches.

The Long Horse. With the pommels removed, the side horse is converted into a long horse. The long horse should be surrounded by mats on three sides, with at least a double thickness at the neck end for landings. The mats on the sides should extend 5' out, while those at the ends should be 10' to 15' in length.

The take-off board should be fastened in a way that will eliminate any possibility of sliding upon the



Hand spotting on flying rings.



Hand spotting and use of overhead mechanic on horizontal bar.





Assisting the parallel bar performer with overhead mechanic, hand spotting, and safety padding on bar.

take-off. It's possible to prevent the take-off board from sliding upon the floor by blocking it against the base of the horse with a T set-up. For further protection against slipping, the take-off board should be surfaced with a non-slip material such as rubber.

THE TEACHER AND COACH

It's the responsibility of the instructor to create a safe and sane atmosphere. He must instill a feeling of confidence and sureness, based upon well-founded fundamentals.

In the early stages of training, many fundamentals are taught that will never be used in competitive routines. But they are nonetheless valuable. The purposes of teaching fundamentals are as follows:

- To develop neuromuscular skills and coordination.
- 2. To develop balance, strength, and flexibility.
- 3. To gradually build up skill and make it safe for the student to proceed to more and more complex stuats
- To build up the strength and function of underdeveloped muscles.

Every student should be taught how to fall correctly. When falling backward, for example, he must be instructed not to put his arms down behind him but rather to blunt the fall with a roll in that direction.

The student should also be taken

through a definite set of lessons in jumping and landing. The jumping and landing, combined with definite instructions on dismounting properly from the different apparatus, will equip the students with a safe termination to all exercises.

WORK OF THE SPOTTER

Spotting may be defined as the art of safeguarding a performer. It may be done simply with the hands or with the use of a belt and ropes. There are hand belts and overhead belts. The overhead belt is commonly referred to as an overhead mechanic.

The spotter must be in a position for immediate action, for he rarely has more than a tenth of a second to decide how to aid a performer in difficulty. All members of a gymnastic class or squad should be trained in this vital art. They should be taught what to do, how to do it, and when to do it.

TUMBLING SAFETY

The tumbling mats must be clean and placed flush up against each other, eliminating dangerous cracks. Again I'd like to mention that a 3" thickness seems to be the most satisfactory. After several years of use, the 3" padding will be pressed down to about 2".

Before starting the workout, it's important to warm up with a systerratic set of calisthenics.

While learning the elementary stunts, there's little or no need for the hand safety belt or the overhead



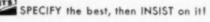
Hand spotting the side horse performer on a rear dismount.

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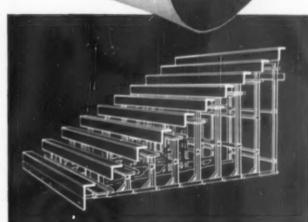
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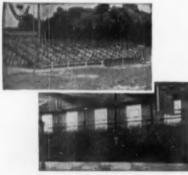
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mechanic. Much of the forward work and much of the elementary backward work can be easily learned without the use of elaborate mechanical help. The use of large, soft, mattress-like pads, for example, will assure the students of little or no injury and encourage their attempts at such stunts as the running front somersault.

A progressive method of teaching such a stunt (front somersault) would be as follows:

Step 1. Definitely establish a good technique for the forward roll.

Step 2. Demonstrate and teach a good technique for the diving forward roll.

Step 3. Teach the head spring from a rolled mat, then teach it without a rolled mat.

Step 4. Teach a hand spring with a rolled mat. Then teach it without a rolled mat. In the latter two stunts, have two spotters kneeling alongside the performers to lift their shoulders and place them on their feet safely. Students or performers now have had the sensation of turning over forward safely.

Step 5. Have the student do a forward roll onto a thick mattress-like pad without the use of the hands. After a thorough demonstration of the tumbler's skip, have the student perform a three-quarter forward somersault to a seat drop onto the soft pads. Have the student perform the same stunt, inserting a tuck and then releasing.

Step 6. Now have the student attempt the whole stunt with two spotters standing alongside the thick soft mattress-like pad. As you can see, the stunt has been safely learned without any harm to the performer.

The use of the hand mechanic, the overhead mechanic, and the overhead travelling mechanic may be easily utilized by the spotters when teaching the previously discussed stunts. However, as illustrated, many, many stunts can be taught safely without elaborate spotting set-ups.

When working with the beginning tumbler, it's important to be sure that he has developed the strength and coordination to attempt certain stunts. It's also necessary to discuss the safety measures that should be observed while learning new stunts.

The following procedure has been used many times in teaching new stunts:

- 1. Describe and demonstrate the stunt.
- 2. Demonstrate the stunt once
- 3. Break down the stunt into its integral parts.

 With the use of a hand or overhead mechanic, work the student through the stunt.

5. If a running approach is necessary, reduce the speed of the run to about one-half or three-quarters of the gymnast's total speed. And again using the hand or overhead mechanic, carefully spot the performer. The travelling overhead mechanic is especially suitable at this point, especially if a running approach is necessary.

6. After many successful performances, the student should be ready to execute the stunt while being carefully hand-spotted by one or two teammates.

The large, soft mattress-like padding is especially valuable when teaching beginners new, semi-difficult, or difficult stunts on the tumbling pads.

THE TRAMPOLINE

The trampoline is unique in that the beginner can with little effort jump high in the air and yet have little control over his body. It's the instructor's responsibility to stress control and well-mastered fundamentals.

Stress a slow controlled mounting of the trampoline and a slow controlled dismounting. Have the students learn the stunts from a standing position, without bouncing. Preliminary low bounces may be added later on.

Do not start work on the somer-saults at too early a stage in the beginner's training. While the somersault itself isn't too difficult to learn, the danger of a sideward cast upon landing is always present. Stress the importance of good position while jumping and the necessity of keeping the abdominal muscles taut. Taut abdominals lessen the danger of back snap.

Spotting should be done alongside and at the ends of the trampoline. The dangerous area lies in the center. Few, if any, serious accidents stem from falling off the apparatus. If the spotters are in correct position, the performer who loses his balance and pitches off the apparatus will either be caught or pushed back on it.

The use of the overhead mechanic is a necessity. Hand-belt mechanics aren't satisfactory. The difficulty in maintaining balance while spotting with a hand mechanic is too complicated to fully protect the performer. While many of the fundamental steps, as well as the forward somersault, can be successfully attempted without a mechanic, the

(Continued on page 63)



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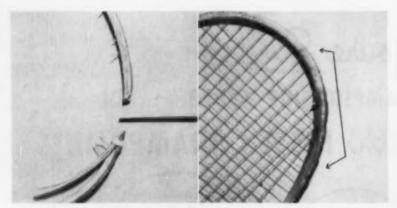
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Fiberglass in action on a severely broken badminton racquet.

FIBERGLASS Wonder Repairer

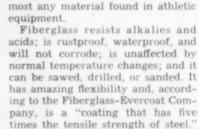
NE of the more vexing problems confronting many coaches and physical education teachers is the maintenance and repair of athletic equipment.

Rarely does a day pass without some precious piece of equipment breaking. Replacements frequently aren't available, and several days or weeks may pass before the item can be repaired or a replacement pur-

Your program certainly will be disrupted if you must wait for a time-consuming repair job; while the continual purchase of new equipment will play hob with your budget. Such extra expenditures will not only reduce the quantity and quality of the equipment, but will affect the variety of activities you can include in your program.

To solve some of the breakage and maintenance problems of athletic equipment, the writer has experimented successfully with an excellent material known commercially as fiberglass. The practicality of this material was discovered while searching for a substance to repair lacrosse sticks. Through the use of fiberglass, approximately \$150 were saved during the first season it was used.

Fiberglass, which is manufactured by many companies, probably can be used to repair more pieces of equipment than any other single product you might try. It is inexpensive, extremely easy to apply,



Following are some of the items that can be repaired with fiberglass: Handles of softball and baseball bats; tennis, badminton, and squash racquets, paddle handles of the many paddle-type games, vaulting poles and javelins, lacrosse sticks, archery bows, metal basketball rims, parallel bars, golf clubs, hockey and field hockey sticks, croquet mallets, fishing rods, oars and canoe paddles, sail masts, and canoes.

Many other uses for this material

By EARNEST E. BAER Asst. Lacrosse Coach, Penn State U.





Saving a severed lacrosse stick.

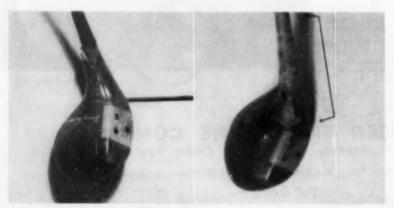
and requires few if any tools, If

you're able to wrap adhesive tape

around a softball bat handle, you

can apply fiberglass. It adheres to

glass, metal, wood, concrete, and al-



Repairing and strengthening a golf club with a shattered head.





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can also be found in your physical education and athletic program.

Although fiberglass has thus far been presented primarily as a repair medium, it has as much value as a preventive material. A lot of equipment can be treated with fiberglass before it breaks. According to S. C. Seley of Perry Plastics, Inc., a lacrosse stick reinforced with glass fibers over the outside would at least be doubled in strength. This information indicates that fiberglass should benefit other equipment in a similar manner.

The procedure used to apply fiberglass is relatively simple. Initially, a quantity of fiberglass in cloth and/or tape form, bonding resin and catalyst (setting agent), several half-inch paint or glue brushes, and a bottle of acetone (obtainable at most drug stores) should be purchased.

The procedure in repair or reinforcing is merely a matter of following the directions furnished by the fiberglass companies. To give the reader an idea how easy this procedure is, the following basic instructions of procedure are presented:

- 1. Before starting your repair work, be sure you have all materials within easy reach.
- 2. Remove all paint and varnish from the area to be repaired. Do not use paint remover, and do not burn off the paint. The use of sandpaper will be adequate.
- 3. Cut the necessary amount of fiberglass cloth or tape so that it is readily available when needed.
- 4. Mix the resin and catalyst. The purpose of the catalyst is to change the liquid resin into a solid. This change begins immediately and takes approximately a half hour at 75° for the resin to become stiff and non-workable (as the temperature is increased, the hardening reaction increases). Do not mix more resin than needed at any one time. The information concerning the amount of catalyst to be mixed with a given amount of resin will be furnished by the vendor.
- 5. Apply the resin around the area to be wrapped with fiberglass. The resin will become sticky and will hold the cloth as it's wrapped or pressed against the surface. Complete the application by saturating the cloth with resin and allowing it to cure (become hard). In 24 hours, the equipment will be ready to use. The repaired area can now be sanded and painted.
- Immediately upon completion of the repair work, be sure to clean all tools with acetone or a cleaning agent supplied by fiberglass compa-

nies. If this procedure isn't followed, the resin-covered items will become unusable.

To illustrate how this procedure has been used: A badminton racquet was severely broken at a bend in the upper frame. The usual repair materials probably wouldn't have done a satisfactory job because the repaired area would be bulky with a lot of extra weight added. Fiberglass tape (.007 x ½ inches) was wrapped around the break and, after it cured, the repaired area was sanded. By holding the badminton frame toward the light, the original holes were visible through the partially clear fiberglass. They were then marked and re-drilled.

Another example was a lacrosse stick which was completely severed at its most vulnerable part. Generally this stick would have been thrown away at a loss to the player or school of approximately \$8. After an application of fiberglass, the stick was returned to service stronger at the broken area than it was when new.

A final specimen was a golf club which had a shattered head at the area where the shaft is attached to the head. Using a metal-bonding resin, an application of fiberglass readily repaired the break and added considerable strength to that vulnerable area as protection against future breaks. This offers a good illustration of how fiberglass adheres to both metal and wood, binding the two materials together.

These illustrations represent only a few of the more difficult repair problems which were solved by the use of fiberglass. The possibilities of this material for repair and preventive purposes appear to be almost unlimited.

In summation, fiberglass is a wonderfully versatile material suitable as a preventive agent against breakage and as a repair substance for costly breaks in athletic equipment. It not only withstands most of the elements such as heat, water, and acid, but increases the strength of an item without adding much additional weight.

The procedure used to apply fiberglass is short and simple. Anyone can apply the material, including the students or athletes who use the equipment.

If your physical education or athletic program is experiencing a high repair or replacement cost, why not try fiberglass?

Additional free information will be sent by writing to: Earnest E. Baer, 211 Recreation Building, Penn State University, University Park, Pa.

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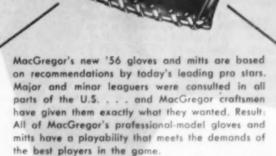
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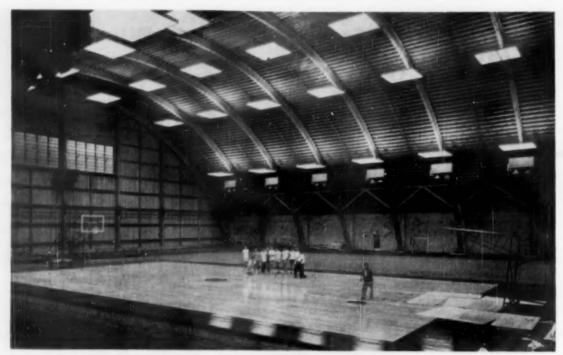
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Though not the largest structure of its kind in the land, Union's 197' by 210' fieldhouse contains a number of distinctive engineering features.

Nine sweeping timber arches, the longest ever produced, form the main skeletal framework of the building. Each measures 254' from tip to tip, has a clear span of 190', and towers 66' in the air.

Another engineering innovation is a unique 400 cycle fluorescent lighting system, the first of its kind to be installed in a commercial building. But before elaborating on this installation, a word may be in order on some of the basic facilities.

Seating: 9 rows of permanent bleachers on the south side around and between the arches seat 590. Removable-type football bleachers can be installed on the other three sides to provide seating for 2,400 more. At present, there are 912 seats of this type on the north side.

Floor: Made of Beech with portable 4' by 8' sections, the floor weighs 21 tons and is removable. Dimensions are 60' by 112' with a playing area of 50' by 94'. Floor was designed and built by DiNatale Floors, Inc.

Track: A one-tenth mile track circles the infield. It has usable straightaways of 55 yards which are 22' wide. The minimum width of the track at the ends is 12', and the track itself is made of 2/3 sandy clay and 1/3 fine screen cinder.

Infield: Clay with 20% mixture of "leelite," a mineral product which keeps the floor soft and porous. It is treated with "snowflake" to prevent dust.

Lockers: Locker spaces are on the south side on a level below the main floor. A visiting team locker room contains 40 lockers and 8 showers, while the main locker room contains 150 lockers, a shower room with 12 showers, and adequate toilet facilities. Other facilities include a coaches and officials room,

Uses: All basketball games and practices. Practice during inclement weather for football, lacrosse, cross-country, soccer, baseball, and track teams. The area will also be used for the intramural program.

THE LIGHTING LAYOUT

Designed and developed by the General Electric Co., the lighting system represents the first application of high-frequency lamp operation for the general lighting of a large area.

The system calls for the operation of 490 eight-foot-long slimline fluorescent lamps on 400-cycle power, rather than on the standard 60 cycles. The tremendously increased frequency (from 60 to 400) is accomplished by means of two 30-kilowatt rotating-type package-unit frequency converters.

Chief benefit of this advanced system lies in the fact that it offers one of the most economical methods yet devised for obtaining higher levels of light in high-bay areas.

The system costs approximately 15% less to install than the incandescent-mercury lighting system





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originally considered for the field-house; and offers an estimated 50% savings in annual operation and maintenance while producing 20% higher levels of comfortable light.

The problem was to illuminate the 44,000 square feet of floor area to a maintained light level of 45 footcandles. As the area was to be used for basketball, and as a practice field for baseball, football, track, and lacrosse, fluorescent lighting was considered desirable in order to avoid the relatively higher brightness inherent in incandescent-mercury systems.

High-frequency operation made fluorescent lighting practicable because each fixture weighs 110 pounds less than for a comparable 60-cycle system, and because wiring costs are much lower.

The level of illumination — between 45 and 50 footcandles — is claimed to be the highest for any field house. It represents more than twice the amount of light provided by typical fieldhouse installations.

High-frequency permits operation of slimline fluorescent lamps at light levels from 20 to 50% higher than the same lamps operated on the conventional 60-cycle power. Lamps at the Union College fieldhouse are operated at 22% over their 60-cycle rating in watts.

The use of rotary frequency converters permits use of ballasts that are simpler, more efficient, and about one-fifth the size and weight of regular ballasts. The converters themselves are comparatively low in cost and reliable in service.

The lighting fixtures are the largest ever used for high-bay lighting. They are 8' square, but weight considerably less than the comparable fixtures in conventional lighting installations. Each fixture contains 14 slimline lamps.

Lighting fixtures are mounted at heights varying from 60' in the center to 34' on the sides. Each lamp produces 6000 lumens. The entire lighting job produces a total of about 3.000.000 lumens.

The lighting layout is arranged so that each of the two rotary converters operates the lamps to allow for approximately equal distribution of light. A simplified wiring system reduces the number of circuits from 84, for the lighting method originally considered, to 14 for the high-frequency-design.

The primary power source for the system is 220 volts, three phase, 60 cycles, while the secondary is 575 volts, three phase, 400 cycles, connected to be under 300 volts to ground. Since 400-cycle power is used, it's possible to use a simple series capacitor and series choke for ballast on alternate lamps. The split-phase circuit produces unity power factor to obtain maximum utilization of the converters.

Although somewhat similar 400-cycle systems have been developed by G. E. for airplane and bus lighting, the Union College lighting job is the first building interior to be lighted by means of 400-cycle power. It has inspired plans for other large installations in the near future.

AVAILABLE SPORTING GOODS CATALOGS

ALL the following sports goods catalogs are available free of charge by following the instructions given at the end of each of the listings.

• MacGregor is offering a fall and winter catalog showing the Ohio State football bowl and a portion of the campus on the cover, and a spring and summer catalog featuring a cover showing the campus of Oklahoma U. These catalogs are sent to all high schools, colleges, and MacGregor distributors. Additional copies are available from The MacGregor Co., Cincinnati 32, Ohio.

• Rawlings' fall and winter catalog is a colorful 80-page job containing illustrations and complete descriptions of Rawlings expanded line of football and basketball equipment, as well as its line of rub-

ber-covered balls and other miscellaneous items. Among new items featured are "Waffle Weave" basketball uniforms, warm-up shirts, knit inserts on pants, and trim on shirts. If you haven't received your copy as yet, check the "Rawlings" listing in the master coupon on page 72.

• Spalding's fall and winter catalog features 48 colorful pages offering the finest selection of sports equipment and accessories for football, basketball, volleyball, soccer, bowling, track, badminton, softball, and squash, as well as a wide selection of popular play and game balls. Included in both the basketball and football lines is a complete selection of junior high and midget team equipment. If you haven't received your copy, check the "Spalding" listing in the master coupon on page 72.

Send for the 1956 catalogs of Louisville Slugger bats for Softball and Baseball and Louisville Grand Slam Golf Clubs. Address Department SC-6.

st in softball

19 Satisfied medical medicals to meet the requirements of every type of setiball hitter—men and girls. Send for your free full color catalog.



Also makers of famous Louisville Slugger Bais for Baseball

-- and Louisville Grand Slam Golf Clubs

Walk-Top, the Miracle Seal for Playground Surfaces



A squeegee spreads the sealer.

PUBLIC school and community recreation systems contemplating the surfacing or repair of playground areas can benefit enormously from the experiences of the Los Angeles City Public School System over the past 20 years. After extensive experimentation with various types of surfacing materials, the Los Angeles system has found the answer to its many problems in a cold-applied fibrated asphaltic material known as Walk-Top.

What prompted the Los Angeles city schools to change to this coldapplied material? The paving program — which now incorporates 55,000,000 square feet of asphalt concrete surfacing at 385 elementary schools, 47 junior highs, 42 senior highs, 8 junior colleges, 13 physically handicapped schools, and 12 office centers—was started in 1936 with specifications calling for a two-inch compacted slab of asphaltic concrete and a protective seal coat of hot emulsified asphalt and dried beach sand.

The emulsified asphalt was applied with a pressure distributor at the rate of between .10 and .14 gallons per square yard and then covered with a coating of dried beach sand applied at the rate of approximately 5 lbs. per square yard. It took from four to six weeks for this type of seal to cure sufficiently so that directional lines could be painted on the surfacing and normal play resumed.

With schools in session we were faced with many hazards and problems. The accident rate increased because of the slippery sand surfaces. Prevailing winds in certain locations removed the sand from areas not sufficiently cured, causing

seal and sand to be tracked into buildings and homes. Normal play was restricted for six weeks or more and the wear and tear on shoes and clothes didn't bring any commendation from the PTA.

There was only one answer, then, to our \$64,000 question and that was to find a protective seal coat that could be applied without the use of sand and which would accomplish four primary objectives:

(1) reduce the severity of playground accidents; (2) minimize wear on clothing and equipment; (3) cut costs of playground and school building maintenance; and (4) increase the life of playground areas.

This exhaustive study was aimed at selecting a material (or materials) which would provide the ultimate in smooth, non-skid, abrasive-free surfaces, with maximum resilience, all within a set economic limit. Engineers of the Board of Education's Maintenance and Oper-

ations Branch recognized that such a seal would mean a saving in wear on clothes, shoes, and athletic equipment, and could well be justified alone for its effect in minimizing playground accidents.

It was also clear that additional benefits would be realized in the elimination of sand and debris that was being carried into school buildings where it presented a problem for the custodians and the floor finishers.

A sizable test program involving a number of sealing materials was begun in 1954 under the direction of the Maintenance and Operations Branch. Specifications were written embracing three types of sealing materials: (1) a rubber-base product; (2) a fine-mineral aggregate and asphaltic emulsion mixture; and (3) the fibrated asphaltic material called Walk-Top. The initial tests resulted in the selection of the coldapplied Walk-Top composition for the sealing of a final 104,000 square feet test section.

The initial step forward took place in mid-summer, 1954, with the letting of contracts for sealing 3,-000,000 square feet of playground area. Bid prices averaged well under \$.04 per square foot for both labor and material. The Walk-Top was selected for this project by competitive bidding based on low initial cost and quality of results desired.

The Maintenance and Operations Branch specified a "Seal Coat Type B" as Bitumuls Walk-Top or its approved equal, consisting of suitable binder and fillers and having a consistency in the container after thorough stirring suitable for easy troweling. The specifications further

By FRANKLIN AZBILL Grounds Supervisor, Los Angeles Schools



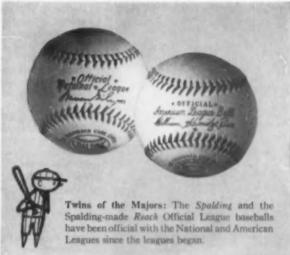
Power buggy lays down the mixture.

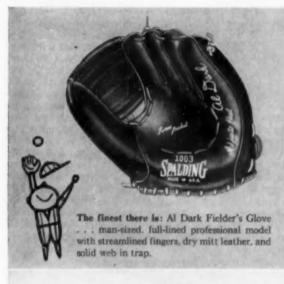
"YOU'RE SAFE"

with Spalding!

Spalding's a name you can depend on when outfitting your 1956 baseball team. Since big-league ball began, Spalding has consistently made the very finest equipment for America's favorite sport.

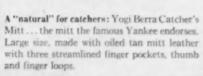
See your Spalding representative now—he has just the right equipment you need to outfit your team and to fit your baseball budget.







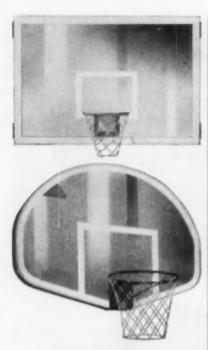








SETS THE PACE IN SPORTS



Eliminate those behind-the-bankboard "blind spots!" Get

NURRE All-Glass BANKS

 Increase your seating capacity, assure livlier rebounds, and provide greater spectator enjoyment... with Nurre All-Glass Banks!

Fully approved by the National Basketball Committee for high school, college and professional games, Nurre All-Glass Banks are surprisingly low in cost, easy to install, and positively guaranteed against breakage in normal use. In fact, Nurre All-Glass Banks have been serving for thirty-one years . . . and not one has ever been broken in play!

In addition to the rectangular and fan-shaped banks shown above, Nurre offers a low-cost rectangular model with a 12" wood panel across the bottom.

Send for free illustrated booklet today. And remember to order your goals from Nurre, too, stating type of bank—all-glass or with wood strip.

THE NURRE COMPANIES, INC.
Dopt. SC 16, Bloomington, Ind.
Makers of Glass Banks since 1924

required that after it had been applied and allowed to set, it should become a tough, waterproof, resilient, traffic-resistant wearing surface of uniform color.

Additional specifications were written as follows: Residue: not less than 60% nor more than 70%; Dehydration test at 100° F.: not less than 60% in 48 hours; Solubility; not less than 15% nor more than 30% of the residue shall be bitumen soluble in carbon disulphide; Loss on ignition: there shall be less than 8% loss in weight when the residue from the solubility test is ignited.

Playground surfaces were leveled where necessary, cleaned from dust or other foreign materials, then washed, wherever necessary. A uniform bond coat was applied, consisting of one-part bonding primer and four parts water, at the rate of approximately ¼ gallon per square yard. Puddles were broomed out and allowed to dry. Surfaces were protected from dust and foot traffic.

ADDITION OF WATER

The entire contents of each drum of the Walk-Top mixture was emptied into a mortar box or placed in a plaster mixer and mixed to a uniform free-flowing consistency. Sufficient water was added to obtain a semi-fluid consistency, but in no case was it diluted more than 30%.

Prior to the first application of the asphaltic composition, the surface was fogged with water from a hose. This cooled the surface and left it damp. Any free water was swept out. Subsequent applications were made without prior fogging.

Walk-Top was applied to the area by pouring from a can or a wheeled container in continuous parallel lines. It was spread immediately with rubber-faced squeegees or long-handled hair brooms. Squeegees or brooms were pulled on an angle from the line of spread to continually roll the material toward the operator and not over-flow or "spill" on its forward edge away from the operator.

Two or more applications were made, using a minimum of 30 gallons of Walk-Top per 1,000 square feet. Areas with heavy and concentrated traffic received three or more applications with a minimum of 35 gallons per 1,000 square feet of area. The average rate of application as covered by the standard specifications is 50 gallons per 1,000 square feet.

Work proceeded rapidly. In less than three months time, the contractors applied over 100,000 gallons of Walk-Top. The contractors report that the significant feature of this playground sealing work is the ease and speed of application. An experienced applicator working an open area can squeegee from 50,000 to 60,000 square feet per day in one application. The fibrated asphaltic emulsion is applied cold, which eliminates the need for heating equipment, in addition to reducing the danger of fire hazards.

An interesting phase of the Los Angeles playground program was the letting of a special job in order that the asphaltic sealing procedure could be observed by conferees of the Association of School Business Officials of the United States and Canada, meeting in Los Angeles during October of 1954. The demonstration was held on 142,000 square feet of playground at the Los Angeles High School.

The program was arranged in order to allow the conferees, each of whom had been provided with a set of Walk-Up specifications, to study each phase of construction. A section of unprimed pavement was left exposed so that oxidation and surface texture could be observed; one section of the pavement had been primed for paving in accordance with the specifications; a portion had received the prime and one application had thoroughly cured. Playing and directional lines were painted on the last section with aluminum paint. The final phase of the program was the actual construction operations, including the mixing, transporting and spreading.

EFFECTIVE RESULTS

From the many reports and inquiries received since this meeting, it would indicate that the playground surfacing program now under way in the Los Angeles area is typical of similar work in all parts of the country.

The program thus far reflects the following results: Three of the four primary objectives have been attained: (1) to reduce the severity of playground accidents; (2) to minimize wear on clothing and equipment; (3) to cut costs of playground and school building maintenance. The fourth objective, to increase the life of playground areas, is still in the experimental stage and only time will tell.

(Specifications for the job were written in collaboration with engineers of the American Bitumuls and Asphalt Co., San Francisco, who have been engaged in the surfacing of over 50,000,000 square feet of recreation area.)

FIRST

on the courts with the Combination Cushion Heel and Arch Support

Originated by Converse, improved by Converse... vainly capied but never equalled... the first combination cushion heel and arch support that provided full protection for normal feet, extra support for weaker arches. This unit is bonded to a full length, shock-absorbing spange insole. Along with other "All Star" firsts, another reason why Converse retains its 40 years of leadership in basketball footwar!



Still FRS Today
wherever Basketball is played
AMERICA'S No. 1
BASKETBALL SHOES!

CONVERSE RUBBER COMPANY

MALDEN 48, MASSACHUSETTS

NEW EQUIPMENT

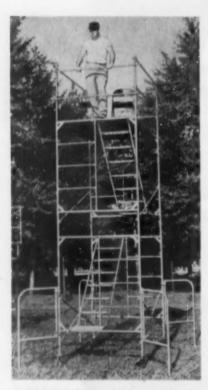
For full details on any or all of these products, check the respective listings under "NEW EQUIPMENT" in the master coupon on page 72.



• SAFETY WAINSCOT. Medart's Safe-Wal rubber-cushioned wainscot provides excellent safety in gym activities. Coming in tan, green or gray, it's a built-up wainscot of 3t" plywood, 12" rubberized hair, 3t" sponge rubber, and a covering of durable, punctureresistant 25 ex. vinyl plastic-coated fabric. Easy to install and maintain, it is resistant to moisture, sweat, dirt, greese, and other damaging and discoloring factors.



• MECHANICAL PITCHER. An automatic machine that simulates actual pitching, this device fires balls with extreme accuracy at the rate of one every 8 sec. Pitching mechanism is simple, and device can be rolled and attended by one man. Ball's speed can be set from 30 to 100 miles per hour. Manufactured by Power Pitching Div. of Up-Right, Inc., it's perfect for providing large squads with lets of batting practice.



e COACHING TOWER. Offering an elevated ventage point, Bill-Jax's tubular steel pertable tower is equipped with removable stair sections which may be used inside tower, as shown, or on outside like fire escape. Is 5' by 7', 14' high, has rubber-tired casters, and is surrounded by sturdy guard rails.



 WOODEN RING. Featured in the latest Gymnestic Supply Co. gym catalog, this 20-ply laminated hardwood ring meets the most exacting stendards of the AAU and is specified for Olympic performance.



e TRAMPOLINE. Aulco Mfg Co.'s new adult-sized popular-priced trampoline features a rigid frame made of heavy pipe and is easily set up and taken down. Equipped with nylon belt duck bed which is one-third weight of ordinary bed. Has tremendous lift and life and will last much lenger. Four legs may be removed for temporary storage. Overall dimensions are 7'6" with bed area of 5' x 10'. Weatherproof steel springs secure nylon bed to frame.

PITTSBURGH · DES MOINES

Steel Deck GRANDSTANDS



LONG BEACH, CALIFORNIA. David Storr Jordan High School; 5,000 seats. Depth 28 rows, length 306 ft.



TYPICAL UNDERDECK VIEW, showing sturdy steel supports and



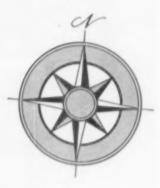
NEW CASTLE, PENNSYLVANIA. New Costle High School; 7200 seets. Depth 30 rows, length 360 ft.

PITTSBURGH . DES MOINES STEEL CORP.

Plants at PITTSBURGH, DES MOINES and SANTA CLARA

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Serving
HIGH
SCHOOLS
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North, South, East and West throughout the country, Pittsburgh-Des Moines Steel-Deck Grandstands are at the heart of high school outdoor events. From football to Commencement, these adaptable, handsome stands serve comfort and security throughout the year. Unit-constructed, permanent, low in first cost and low in upkeep, P-DM Grandstands—first choice of progressive school districts—offer truly exceptional value. May we give you the details?

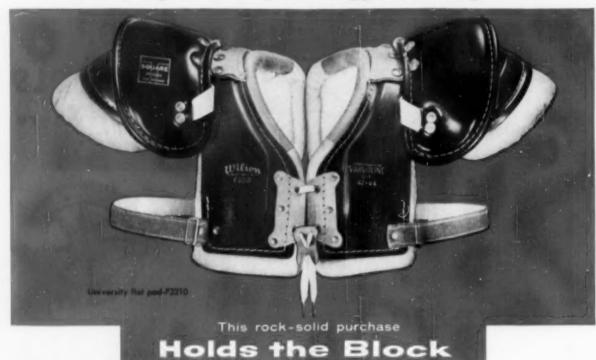


Safest



Buy

New Wilson "T-Square" Shoulder Pad provides far more protection plus a bigger blocking area!



At last! A pad that can't break down on contact . . . or shift or choke! Its new shallower-corrugated, longer front gives better chest protection. Its new body-hugging fiber conformation coupled with its new 2-eyelet lacers mean your players can even swing their arms forward without unseating the pad. And it's lighter, too, with better-protection Ensolite under all fibers.



New exclusive DOUBLE CAP keeps the pad square under severest impact. Acts as outside cantilever over ball of shoulder—shifts shock first to its own periphery, then to base cap, finally to 34° Ensolite which mousetraps most of residue.

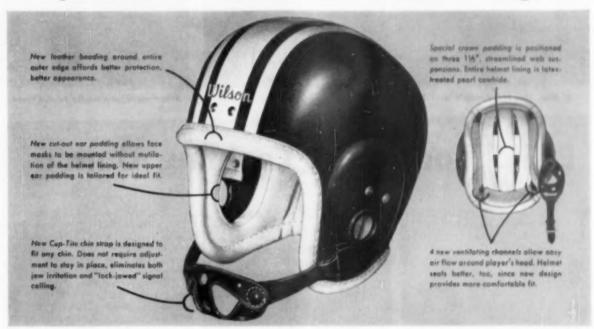


New WEB LOCK feature keeps epaulets from skewing. Unique locking action of webbing, attached between epaulet and double cap, means epaulet can't be smashed into wearer's neck or face. Same construction eliminates hinge tears, too.

Your Wilson salesman will contact you shortly. We urge you to place your orders

for 56 Wilson

New Wilson TP helmet offers same great protection now with new "air-conditioned" design



F2000 Here's peak protection against head injury! The new TP features a one-piece, molded Tenite plastic shell with a patented * composite padding of Ensolite and Latex Foam throughout the entire interior. And Ensolite is still 3 to 7 times more effective than any other shock-absorbent material in football.



The "RP"-F2010 This rubber plastic helmet represents the ultimate in safety. It fits low in the back to protect the base of the skull. It extends forward enough to cover the temples, yet does not obstruct vision. Its inner-safety construction is attached direct to the crown. There are no raised or exposed parts to cut the opposition. And there's no ring or echo due to the unique formation of its ear molds. Has patented * Ensolite and Latex Foam composite padding. Cup-Tite chin strap.

early to avoid delay and disappointment.

*Patent No. 2,634,415

F2002 Like F2000, except has popular 6-point, Navy-type, 13/4" suspension. Same patented Ensolite and Latex Foam composite padding!

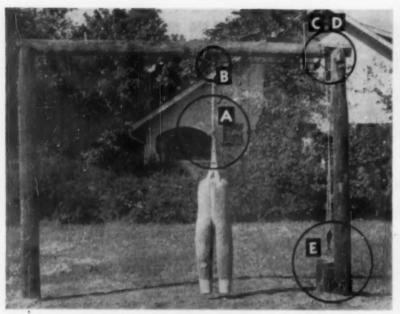


Wilson

It's Wilson today in sports equipment



Wilson Sporting Goods Co., Chicago • Branch offices in New York, Son Francisco and 26 other principal cities. IA subsidiary of Wilson & Co., Inc.)



A fine, sturdy, durable and inexpensive home-made practice device.

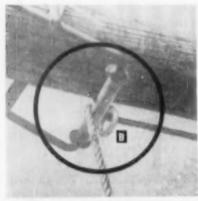


Attachment of dummy to the rope.

Build Your Own Tackling Dummy

HOUGH perfectionists may claim that there's no substitute for the "real thing" when it comes to tackling practice, the fact remains that the coach of the average high school squad simply hasn't the manpower to gamble with the injury risk.

Only a limited amount of "live" tackling practice can be attempted. To get in the essential tackling work, therefore, the coach must resort to some good artificial medium—and that's where the tackling dummy comes in. With this device, the coach can get in all the tackling practice he needs with absolutely Bo risk to life or limb.



Guiding roller and eye for rope.

By RUSS POLLARD

Knox Junior H. S., Johnstown, N. Y.

Faced with this situation in my first year of coaching I decided to construct my own tackling device. The experiment proved such an outstanding success that I'd like to pass on the details to other coaches.

The first problem was the selections of a suitable area—a good sized stretch of ground close to the field with a soft surface to cushion the falls. (If necessary—and possible—a pit with soft shavings can be set up under and around the suspended dummy.)

Once that was settled, work was begun. Three sturdy poles were secured through a local lumber company, and cut into two 12' and one 13' lengths. An 11"-12" wedge-shaped notch or groove was cut into the top section of each 12' upright (see "D" in illustration), and the two poles were set into the ground to a depth of 4'.

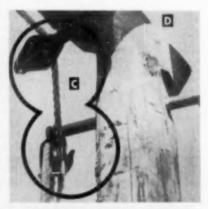
We then cut wedges out of the ends of the crossbar to fit the corresponding grooves in the uprights (see "C-D"). Once the crossbar was set in place, a large lag screw and washer were screwed into the uprights through the crossbar to make the whole construction secure and rigid.

The next problem was the dum-

my and how much weight to attach to it. There had to be enough to make contact with it feel natural, but not so much that a good tackle or series of good tackles would snap the rope.

I had to compromise. I used a large weight, 90 lbs. (see "E"), plus a series of three pulleys ("C" and "E") to accommodate the length of rope. The pulleys served two valuable purposes. First, they distributed the sudden pulls on the rope over three strands rather than one; and, second, they gave us a mechanical advantage of 3.

This means that for every foot the dummy was moved, the weight



Pulley attachment and grooves.

THE TOP BUY IN PHYSICAL EDUCATION UNIFORMS FROM

Complete Phys Ed Uniforms 3 Combinations at **NEW LOW PRICES**

CHAMPION'S "Complete Phys Ed Uniforms" are priced lower, and the savings are passed along to you.

Follow the lead of more and more of the nation's colleges and high schools and equip your school with top quality, long wearing, perfect laundering Champion Phys Ed Uniforms.

Here are the three standard T-Shirt and Gym Pant combinations.

FEATURING:

- · T-Shirts in white and colors.
- · Gym Pants in white and colors with our exclusive triple stitched Boxer style elastic waist that's specially treated to be heat resistant.
- · Your school design processed in your own school color on both shirt and pant.
- Permanent color processing that will not fade, run or wash out.
- Consecutive numbers incorporated in the design at no extra charge.



T-Shirt: Style 78QS. Top quality cotton, full cut, ribbed form-fitting neck. WHITE ONLY. Sizes: S-M-L. Gym Pant: Style KEJ. Full cut, 4-piece "Sanforized" cotton twill. Triple stitched Boxer style waist with heat resistant 134" elastic. WHITE ONLY. Sizes: XS-S-M-L.

Complete Price, including shirt and pants processed in your own school color with your own design...

\$1.60 per uniform.

For extra-large size: Add 10%

WRITE FOR 1956 CATALOG



T-Shirt: Style 78QS. White.

Gym Pant: Style KE/8. In following colors all stocked for immediate de livery: Dk. Green, Kelly, Navy, Royal, Maroon, Scarlet, Gray, Black, Gold. Full elastic waist. Sizes: XS-S-M-L. Complete Price, including shirt and pants processed in your own school color with your own design...
\$1.65 per uniform.

For extra-large size: Add 10%



T-Shirt: Style 84QS. In following colors—all stocked for immediate delivery: Dk. Green, Orange, Purple, Kelly, Navy, Scarlet, Maroon, Royal, Gray, Black, Gold and Old Gold, Same construction as 78QS. Sizes: XS-S-M-L. Gym Pant: Style KE/8.

Complete Price, including shirt and pants processed in your own school color with your own design . . . \$1.75 per uniform.

For extra-large size: Add 10%

SAMPLE

GYM

SUIT

SUIT

MPLE

Champion will send you a free sample of the T-Shirt and Gym Pant so you can see how a gym suit for your Physics! Education classes will look with your design in your school color.

combination. This sample request must come from the Physical Educa-tion department or office. Please spec-sty design and color when writing for sample.

CHAMPION KNITWEAR CO., Inc. ROCHESTER 4, N. Y.

BUY DIRECT-Manufacturers from Yarn to Finished Product

DOWMETAL Crossbars

Popularity shown by increase in sales every year

These triangular, hollow bars are the truest, most practical, longestlasting crossbars on the market—

- Encourage high jumping and pole vaulting with these finest of crossbars.
- Now used by most outstanding track schools throughout the country.
- More popular than ever last year's new color and new design outsold all other crossbars!
- Will last three years or longer with proper care.
- Possess 2" to 6" less sag than wooden or cane poles.
- . Uniform all the way across.
- . No danger of splintering.
- Bends back easily when landed upon. No sharp edges.
- Metal is patented magnesium alloy especially suited to a great deal of bending.

WEIGHT AND PRICE

12	(jumping)	2.0 lbs.	\$5.75
14'	(jumping)	2.3 fbs.	6.50
16'	(vaulting)	2.6 lbs.	7.25
18'	(vaulting)	2.9 lbs.	8.00
	50¢ per bar	higher west of	Rockies

plus

Downetal Combination Standards for High Jumping, Pole Vaulting

- Light, easy to handle, simple to adjust, easy to dismantle.
- Made of magnesium uprights with iron bases, die-cut scale.
- As stable as any other metal or wooden standard.

Only \$72 per set (F.O.B. Midland)

Write for the name of the dealer nearest to you.

K. & P. Athletic Co.

1115 Jerome St., Midland, Mich.

would move only a third. For instance, if some husky lad came charging through and hit the dummy hard enough to lift the weight to the top of the post (8'), the dummy could be extended 24'. This pulley and weight arrangement gave the dummy all the "play" we needed.

The next problem was the placement of the rope across the crossbar and down to the dummy. It had to be set up so that there wouldn't be a point of strain that would cause the rope to wear out unnecessarily fast.

A single pulley or a single eye wouldn't have been wise, since the rope is always pulling in the direction the dummy is moved. The pulley would thus be constantly moving back and forth, and hence be subject to stresses and strains that might cause it to break. An eye would cause the rope to wear too fast.

Photo "B" shows the solution, again somewhat of a compromise. The eye was merely used to guide the rope from the pulley to the center of the post. There, a large, wide roller permitted the rope to "roll" freely as on a pulley, but still allowed the rope to carry through as the dummy was tackled and carried through. The position of the eye prevented the rope from carrying too far on the roller, without excess strain.

The last thing to be considered was the attachment of the dummy to the rope. The connection had to be secure and yet not cause any unnecessary twisting of the rope. It also had to facilitate the putting

up and taking down of the dummy.

Photo "A" shows how this was done. A slip-hook was permanently fastened to the dummy rope and a swivel eye spliced to the other end of the rope. (All rope connections were spliced.)

One of the beauties of this construction is that it can be done inexpensively. The necessary parts can be obtained very cheaply or perhaps for nothing at all. In our case, the rope was half-inch Plymouth cord (a boating rope), the bolts and screws were bought in a hardware store, and the welding was done in the school shop by student players.

The size and length of the bolts depend upon the size of the posts that are used. Three- or four-inch metal piping can be used in lieu of the wooden poles. This will enable you to set up the dummy in an area used for some other activity during the year. The metal posts can be threaded to fit into pre-sunk pipes, which can be capped and covered when not in use.

As a further refinement, a small round metal rod can be run up and down the side on which the pulleys are located. This would provide a track on which the weight (with an eye fitted over the rod) could travel up and down without any swaying.

After leaving coaching for a teaching position, the writer showed a picture of the tackling dummy to the high school coach in his system. He promptly installed the device, using heavy gauge piping instead of the large poles. And it has worked out fine.

HIGH SCHOOL SPORTS ARENA SUPREME

☐ UNTINGBURG (Ind.) H.S. is playing its basketball games in one of the finest schoolboy gyms in the land. A 200 by 186 ft. structure, with the playing floor 16 ft. below ground level, it features 5020 permanent seats without a single blocked view!

Upon entering the building, the spectator finds himself on a floor that extends entirely around the gym behind the topmost row of seats. On this floor are found rest rooms, concessions, ticket booths, etc. 16 rows below this level is the playing floor. The spectator enters the building, goes down to his seat, goes up and out of the gym without coming near the playing floor! The team enters and leaves through tunnels leading to the dressing rooms.

The playing floor is illuminated by fluorescent tubing, while the bleacher section is lighted by standard incandescent bulbs. A scoreboard is mounted on each end of the building, affording the players and fans an un-

obstructed view of the score and time by the second.

The building itself features a steelsupporting structure for the roof known as a three pin hinged arch which is developed into a flat type arch with quite an upward thrust at the base. This thrust is resisted by large concrete piers, carefully calculated to not only resist this outward thrust but also the overturning moment resulting from the outward horizontal thrust.

The playing floor provides a place for other indoor sports and physical education activities for both girls and boys, as well as a parade ground for the school band.

The latest thing in modern design, this super gym and sports arena really must be seen to be appreciated. It entails an investment of considerably over a quarter-million dollars—tangible proof of Huntingburg's confidence in the future of its school.



Dept. 167, 1013 Pardee Street, Berkeley, Calif., Factories: Berkeley, Calif. & Teterboro, New Jersey, Offices in all Principal Cities

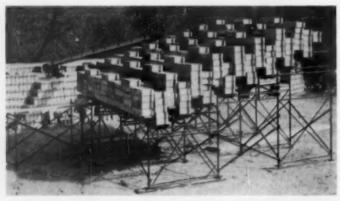
NEW EQUIPMENT

For full details on any or all of these products, check the respective listings under "NEW EQUIPMENT" in the master coupon on page 72.

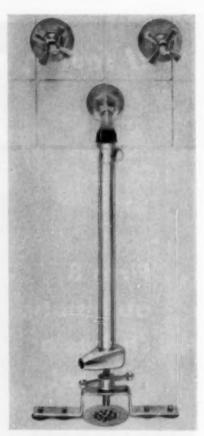


e FOOTBALL GOGGLES. All rubber with prescription ground lenses, Safe-Play Goggle Co.'s new patented form allows lens to be set in exact position that eye glasses are located. No metal parts used; ventilated to prevent steaming up; 100% safe. • TETHERBALL SET. Features %" thick regulation size paddle with reenforced dowels, top-quality 2" spange rubber Tetherball with regulation 7½" of 100% braided nylon heavy cord, and rawhide leather holder with codmium plated heek. (Jayfre Ath. Supply Co.).

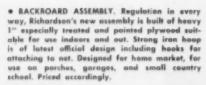




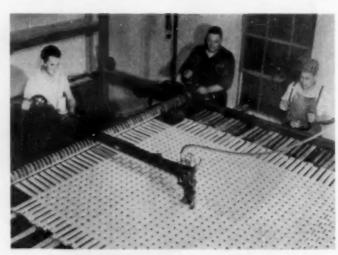
e TUBULAR STEEL BLEACHER. Assembled entirely without nuts and bolts, Sice Grandstands' new tubular design assures extreme portability by eliminating excess weight. Patented "Speedlock" expedites fast erection and disassembly.



e WHIRLPOOL AERATOR. "Whirlbath" transforms any standard bathtub into effective whirlpool bath. Relies entirely on normal water pressure, requires no costly plumbing installations, no motors, electrical connections, etc. Strongly built of chrome-plated bronze and stainless steel, it provides hydrotherapy benefits in user's own home. A Whirlbath, Inc. product, it sells for a fraction of the cost of even small hydrotherapy units.







 ALL-NYLON TRAMPOLINE BED. Nissen's unique loom is used for weaving and sewing those superb all-nylon trampoline beds now being used in high school, college, and AAU competitions. This special process assures the finest product.

Cyclo-Massage Speeds Healing of Bruises, Sprains, Charley Horses

Sports College's Lloyd Percival Finds Injury Time Reduced With Use of Cyclotherapy® Equipment

Much has been said of the Cyclo-Massage devices (Cyclotherapy) being used in the United States by an ever-growing group of athletic trainers, coaches and professional athletes.

After having read several very favorable reports of this equipment from such eminent athletic trainers as Howard Waite of the Pittsburgh Panthers and Dr. Harrison Weaver of the St. Louis Cardinals, Director Lloyd Percival of the Sports College, Toronto, undertook his own research program.

Highlights of Director Percival's report, "Effectiveness of Cyclotherapy on Athletes," are as follows:

"We have found that contact bruise injuries of all types (especially the well-known Charley Horse) react very favorably to the use of Cyclotherapy. In many cases we found that the use of this equipment cut down the time of recovery—sometimes as much as 50%. There appears to be no doubt that Cyclotherapy stimulates the circulation very effectively and thus aids the normal healing processes.

"In using the equipment in the treatment of 'Shin Splints,' a notoriously difficult condition to cure, we can report exceptionally good results. So far in our experience we have not used a technique that has such quick-acting results.

"In the treatment of strains and sprains we have found that the use of Cyclotherapy does a great deal to hasten the healing process. It was particularly noticeable that the muscle spasms and tension usually associated with these injuries were relaxed very quickly by the use of this equipment."

RELIEVES TENSION, FATIGUE

Aside from its healing benefits, Director Percival found that Cyclotherapy had an excellent relaxing effect on men who were extremely susceptible to pre-game nervous and muscular tension.

The equipment proved extremely valuable, also, as a sleep-inducing agent for tense, apprehensive athletes, and as an aid in the recovery from fatigue due to muscular activity.

EASY TO USE ON THE FIELD, IN THE TRAINING ROOM

Cyclotherapy equipment is available in various styles of training room tables. In addition, small units are offered that can be carried with the team. These portable models are so light and compact, in fact, that they can be kept right at the bench for immediate use in case of injury.

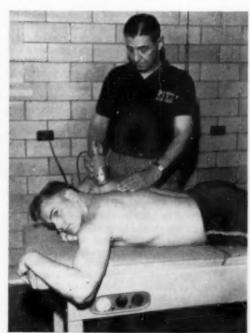
CYCLOTHERAPY PROVIDES EXTRA HANDS FOR BUSY TRAINER

Cyclotherapy can be applied by the injured person, himself, with but a small amount of supervision by the trainer. This, obviously, permits the harassed trainer to handle many, many more cases than heretofore.

Furthermore, as Trainer Howard Waite of the Pittsburgh Panthers points out, the Niagara Hand Unit, when substituted for hand manipulation, takes the labor out of the rubdown.

FREE BOOKLET GIVES PRICES, DETAILS

Full details on Cyclotherapy equipment, including catalog and prices, are available. Simply write to Cyclotherapy, Inc., Dept. Sc10, 11 East 68th St., New York 21, N.Y.



The Pittsburgh Panthers' progressive trainer, Howard Waite substitutes Cyclotherapy for hand manipulation in giving his athletes rubdowns, as demonstrated here on tackle Eldred Kraemer (now a professional football star).



The late Dr. Harrison Weaver, (St. Louis Cardinals) used Cyclotherapy in the treatment of certain painful, incapacitating injuries.



Use of the portable Cyclotherapy cushion on ankle injury is here demonstrated by Trainer Howard Waite and ex-Pitt tackle Eldred Kraemer.



Danville H. S. eleven getting a critical commentary from coach on movies of previous game. A

nearby TV station processes game film and returns it within less than 24 hours after the game!

Movies Make the Difference!

By J. B. WOODSON, JR.

If I HAD to choose between the loss of movies or an assistant coach, the assistant coach would just have to go!" So says Kenneth G. Bills, supervisor of athletics and head football coach for the Danville, Pa., school system.

A rugged individual who's done wonders for athletics in his neck of the woods, Coach Bills credits the

Math teacher Bob Warrington shoots Danville games from a camera booth on top of the grandstand, using ultra fast lens and Du Pont 931 film.

motion picture for much of his suc-

Back in 1946 when Bills started to work at Danville, total participants in school athletics numbered a lackluster 18. Only 16 pairs of shoes were available for the squad, and the total football inventory came to a mere \$1,300.

In approximately 10 years, Bills changed the picture to 200 participants and an equipment inventory of more than \$35,000!

Danville, located on the north branch of the beautiful Susquehanna River, plays in the Susquehanna and Shikellany conferences. Its record when Coach Bills took over was just one victory in its previous 33 games.

Yet the interest was there. Though only 16 uniforms were available, 90 boys came out for the varsity, jayvee, and Junior high teams, and Bills steered his first eleven to four wins and seven losses.

The next year (1947) Coach Bills decided to try the use of motion pictures. The season was photographed on an experimental basis, and the varsity bounced back with 10 victories out of 11 games!

Having proved of unquestionable value, the picture-taking quickly moved out of the experimental class. It became a permanent coaching aid. However, the funds to buy a camera were unavailable right then, and Danville went through the 1948 season with borrowed equipment. The school purchased its own camera the next year.

Danville went on to capture the football title of the 13-team Susquehanna Conference four times, and has annexed the six-team Shikellany Conference crown three out of the past four seasons. The team has won 23 out of its past 25 games.

The year before Ken came to Danville, both basketball and football receipts amounted to only \$2,700. Today approximately that amount comes in from each home football game alone! Home game attendance in Danville, a town of 7,500, now runs between 3,000 and 4,000.

Though his motion picture activity proved an unqualified success, Coach Bills remained unhappy about one important phase of it. He wasn't getting his finished prints back in time for full coaching exploitation. The film would be shot on Friday



Teams learn faster

WITH MOTION PICTURE "SKULL SESSIONS"

Call time out for a "skull" practice with motion picture film . . . members of your squad can see themselves in competition, plan strategy and improve on fine points of play. Du Pont Type 931 High Speed Rapid Reversal Motion Picture Film can help you build a winning basketball team.

And all that's needed for filming basketball games at home or on the road is ordinary court illumination. You'll pick up every detail . . . get clear, sharp images that provide a permanent performance record of games as they're played. You can have Type 931 processed and returned to you soon after the game.

Motion Picture Film



BETTER THINGS FOR BETTER LIVING . . . THROUGH CHEMISTRY

This is the film that's so popular for shooting football games . . . where it's used both day and night and in all kinds of weather.

Try this motion picture training technique using Du Pont High Speed Rapid Reversal Motion Picture Film and see how it can help your players improve on fundamentals.

Just mail the coupon and we'll gladly send you more information and a list of firms in your area that are equipped to give fast processing service.

Du Pont 2420-2 Nemours Bidg Wilmington 98, Delay	
Please send list of ;	processors and complete data or High Speed Motion Picture Film
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School	
Address	
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the new sport sock that stretches

to fit any foot size 10 to 13.

HAND KNIT HOSIERY CO.

Sheboygan, Wisconsin

(game day) and the finished print would arrive only a day or so before the next game.

Casting around for a solution, Bills suddenly thought of the nearby television station, WBRE-TV, Wilkes-Barre. Upon inquiry, he discovered that the station had its own processing facilities. That was it, Bills thought, and time has proved him correct. He now gets his prints back less than 24 hours after the game!

Since the station uses Du Pont Type 930 Rapid Reversal Pan film for its daylight shooting and Type 931 High Speed Rapid Reversal Pan for pictures under weak illumination, Bills follows suit. He uses 930 for his few daylight games and the faster 931 for the games under the lights.

After the game, the film is put aboard a bus and WBRE-TV has it picked up. The exposed footage is processed Saturday morning and put on a return bus. That means Coach Bills and his staff can view the results Saturday afternoon—less than 24 hours later!

Ken's concentrated use of movies goes something like this:

- Saturday afternoon or evening, he studies the returned films himself.
- 2. He and the other coaches meet Sunday and Monday for post-mortems. They make notes, check patterns, and scrutinize individual technique.
- At noon Tuesday, the backfield gathers to view the films and hear the game discussed.
- 4. The linemen come in for a similar session at noon Wednesday.
- At noon Thursday, the players who'll be in uniform for the next game study the movies, forward and backward.
- 6. Thursday evening, the coaches go over the films with the boys again and also discuss movies of previous games if applicable.

Ken hasn't started scouting the opposition by means of movies yet, but that day may come, he says. Meantime, before a Danville scout leaves to cover a game, he reviews the movie of Danville's last game with the opponent to see whether the same plays are still being run.

Motion pictures are considered so important at Danville that every member of the team must learn to operate the film projector. During the school day, whenever a player has an open period, he's encouraged to spend his time analyzing the pictures of various games—as long as his academic record permits. Close check is kept upon his grades.

Ken Bills was the first coach in the Danville region to employ motion pictures as a training aid. However, he doesn't restrict use of the pictures to training. He'll show the game movies to two people or 200 people. All they have to do is ask.

A number of Danville boys have an extra special reason for wanting to play better football. Without a scholarship, they'd be unable to go to college. And the movies, Ken says, are invaluable aids to the fellow who wants to improve himself.

Bills notes with pleasure that about 85% of his boys within the past 6 years have gone to college, and about 70% of them have played college ball. One of Ken's outstanding graduates was All-American Dick Dietrick of Pitt.

"A kid," says Ken, "may think he played a whale of a ball game—until the movies are shown. The films offer the proof supreme. They're bound to produce better players and better coaches."

A \$625,000 Gymnasium-Auditorium

ENGLEWOOD (Colo.) H. S.'s new \$625,000 auditorium-gym, with an attached cafeteria, features a regulation 50 by 84 ft. basketball court on a stage that is 64 by 108 ft.!

Constructed of masonry faced with brick, the building has a curved roof supported by steel trusses with a 135-ft. span. The arch type roof, which is 36 ft. high at the center, covers 37,000 square feet and is a poured-in-place deck containing fiberglass form board—a permanent form made of fibrous glass bonded with resin. This provides an attractive finished ceiling with excellent acoustical, thermal, and firesafe properties.

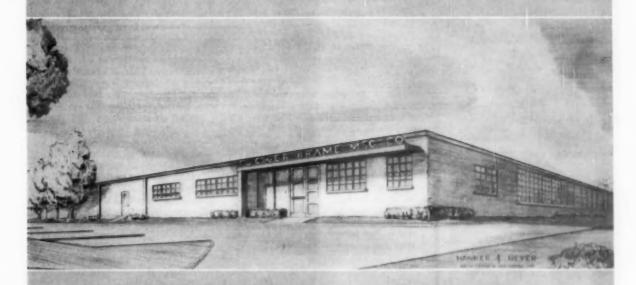
The stage is equipped with curtains, microphones, and other facilities, and the building has a permanent seating capacity of 2,200, with room for another 1,000 portable seats for basketball games.

A wrestling room is located under the seats, which extend back and upward from the stage. Locker and shower rooms are in a partial basement under the building. The building also features a 10-ft. wide running track circling entirely around the inside walls.

The attached cafeteria is 41 by 113 ft. with a seating capacity of 400. It comprises a separate flat-roof addition to the side of the main building, and both it and the auditorium may be used by the entire community for shows and dinners.

Constructed by the board of education, the gym-auditorium adjoins the high school where it's easily accessible to students and faculty. It also has doors leading directly to the outside and can be entered by the public without going through the school it-

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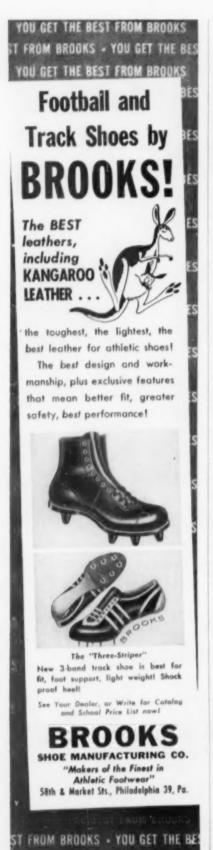
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YOU GET THE BEST FROM BROOKS

Odessa H. S. Training Room

(Continued from page 11)

lized, they're cleaned each day with iso-quin so that they're always free of foreign substances. The perspiration induced by heat treatments is easily wiped off the plastic surface.

Also considered basic equipment are three wooden cradles used primarily for the elevation of a limb. Made in such fashion that the high end rests at the foot, slanting toward the body, the cradle elevates the foot higher than the head. This elevation is necessary for good drainage in acute injuries, and it's in this cradle that all our ice treatments are applied.

We believe in the immediate application of ice to all acute injuries, and to implement our theory we have a small deep-freeze that enables us to make our own ice.

We apply a pressure bandage to all injuries as quickly as possible and then, with the aid of a cradle, we employ elevation and ice treatment. Trainers vary in their use of ice. Some will use it for only 30 minutes, while others will employ it for prolonged periods as much as 24 to 48 hours.

Either method requires ice; and our deep-freeze makes all of it we want. The initial cost of the freezer may be a little high, but over the years it will more than pay for itself in services rendered and money saved.

Ice bags offer a very handy means of applying cold to the body—though the use of them is somewhat controversial. Many trainers prefer the use of ice in towels or favor the immersion of the injured part in a tub of ice mater. Since the former is sometimes messy and the latter is quite spartan we prefer the use of ice bags.

Other trainers will wet towels and place them in the deep-freeze until needed. When the occasion arises, they'll just run water over the frozen towel and apply it to the injury. This towel will mold to an area and also serve as its own insulator.

All in all, however, any method is effective—just so long as you apply the ice immediately.

For diathermy, we use the Burdick MF-49 machine with the adjustable arm and contour electrode. This machine is used in the early treatment of ligamentous injuries and also for deep-seated injuries. The contour applicator is more easi-

ly applied and offers the best advantages. We find this machine particularly applicable to low back sprains and strains.

The Ille Hydromassage is a must in our training room. We use it for all types of sprains, strains and contusions. Its freedom of action and motion proves extremely helpful in the treatment of these ailments. Moist heat is highly effective in alleviating the tightness found in most injuries, and our hydromassage device does a fine job of relaxing the tissues and promoting the absorption of wastes.

Our Burdick Infra-red lamps are used to convey heat to various parts of the body. This offers an effective means of transmitting heat to superficial injuries. We use it for surface bruises, strains, and sprains.

Quite often we use this type of heat with wet towels. We apply epsom salts to the towel as it is laid over the wound thereby deriving the advantage of moist heat (which is relaxing) as well as the effects of the heat itself, which of course is very healing. The use of infra-red over analgesic pads on the chest has proved beneficial for chest colds, etc.

We use weight exercises in our rehabilitation program. This calls for approximately 150 lbs. of weights, plus the weighted shoe. In all knee injuries, the quadriceps series of exercises is a must. Injuries to ankles, shoulders, backs, etc., will also be benefitted by proper exercises and proper supervision.

While the use of weights may be frowned on by some educators, its use in rehabilitation is essential. We feel that after an injury the ensuing atrophy must be remedied. Since the quickest way to develop muscle is with resistance, we use the weights for this program.

The De Lorme system of progressive resistive exercises is employed, with slight variations. For knee injuries, we start with the weighted shoe alone and then as tolerance builds up, we add accordingly. Allowing an athlete to go back to work without the build-up is just like going to bat with two strikes on you.

For shoulders, arms, etc., we start light and add rather rapidly. After results are achieved, we cut down on the exercises, gradually eliminating them completely.



Sports

FESTIVAL

Month of May

The Festival is a national observance that will take place in many communities throughout the United States some time during the month of May. Interested persons in their respective communities will cooperate in planning and initialing activities that call attention to the values of sports and recreation in American life. Individuals and groups, at all age levels, will be encouraged to participate in many wholesome recreational activities appropriate to age, sex and physical condition. Community celebrations are to be educational and recreational.

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NATIONAL SPORTS FESTIVAL

THE WHITE HOUSE WASHINGTON

Denver, Cularado Nosember 4, 1955

The National Sports Feetivel, to be held during May.

1956, provides a splendid opportunity for our citizens
to consider the values papers, physical education,
the feetively sponsors, and large the State and
commenties to care you appropriate artivities to
commenties to care you appropriate artivities to
happy to more the current Festival's emphasis upon
family recreation.

We shall continue our efforts in the Executive Office to encourage programs aimed toward family unity and youth development. I hope that our achieves the encourage programs will be partially and the creation departments, youth organizations, churches and other creations of the programs of the 1956 patients of the part most doing and of entirely and the good work too in making their programs even more effective.

Dung ht Bleson have

716 Rush Street - Chicago, Illinois



Oxygen is beneficial in our climate, particularly in the early part of the season. The temperature in Texas is quite high in early September and we use oxygen as a pick-up whenever the players come out of the game for a rest. The free flowing type of tank has been found extremely effective for such usage.

Our physicians recommend the use of a head halter for traction of the cervical spine. With the increase of strained and stiff necks, this piece of equipment is a decided boon in the treatment. Our halter stands near a doorway, and is used with a six-pound weight for approximately 20 minutes. The treatment is never employed unless prescribed by a doctor, and heat is always applied before any traction is attempted.

The physician-type scale is also part of our set-up, allowing us to keep close tabs on the boys' weights. If there's a decided fluctuation over a short period of time, it indicates that the boy needs a check-up by our team physician.

Quite often an athlete will be just a boy when he leaves for summer vacation, but will return in the fall as a man. The use of scales will definitely establish your athletes' progress. We give our overweight boys a goal to shoot at, and with the scales handy there's no doubt about their progress, whether it be good or bad

A desk and file cabinet are included in the training room equipment. These are used to keep the necessary records in a program as large as ours. Every boy is required to have a physical examination, and his record is kept on file along with the injuries sustained by him.

The so-called minor injuries, such as blisters and bruises, are not listed. We confine ourselves to the recording of major injuries-those requiring the services of a physician, lab work, etc. Any injury that prevents a boy from playing, either in practice or a scheduled game, is recorded on his chart and kept for future reference.

A telephone is on the desk, handy for emergency calls for the doctor, ambulance, hospital, etc.

A clock is also deemed essential for the timing of treatments as well as for enabling the boys to get out to practice on time. Time being of the essence in athletics, the clock serves as a constant reminder to the boys. There can be no excuses for coming late.

At this point, coaches will say: "Well, it's easy for you to stand up there and tell us all these things, but we don't have the budget to carry out the needs of a good training program."

We know that schools work on a small budget, but we also know that there are parents' and boosters' clubs who can offer a great deal of assistance. At Odessa for example. we have our senior lettermen sell "Beats." These are little cards approximately 4" by 4" which read "Beat ____" (opponents' name). These sell for a dime and aid in stimulating school spirit and raising needed money.

Many schools can, in this manner, raise enough money to buy essential training room equipment. One of our junior high schools bought a whirlpool bath last year and is buying a washing machine this year.

Where there's a will, there's a

Brazosport H. S. **Training Room**

(Continued from page 10)

cradles, one medicine cabinet, one towel table and one set of scales. We also have two fine Frohse Anatomical Wall Charts.

This equipment wasn't obtained in just one year or two. It has been acquired over a period of five years, a bit at a time. You just cannot hit your school board or athletic committee for the full load and expect a favorable reaction. But the load can be carried if split into sections.

Choose the items needed most and have them built or purchased first. Keep them in good condition and add to your equipment each year, rather than have to repair what you

already have.

Daily upkeep is most important. Your whirlpool tank should be kept spotless at all times. It's surprising how long they'll last and how efficiently they'll function if properly treated

We use our whirlpool for about 2.000 treatments during the school year and have needed no repair in over five years of operation. Our short-wave diathermy machine has functioned safely and efficiently for more than four years without repair.

The doctors and dentists of the Brazosport area have given us their wholehearted support and approval. Theirs has been the guiding and ever-helpful hand needed to make a success of the program. The doctors diagnose the injuries and prescribe the treatment; the trainer carries out their recommendations. Thus the injured athlete has competent care from the time of injury until a complete recovery to normalcy.

Our doctors and dentists have

helped us in many ways. They've given unselfishly of their time and knowledge, advising the trainer of new techniques, new medications which have been tried, tested, and found advantageous, and generally lending their support.

We feel that every high school or school district has need for a qualified athletic trainer in order to insure complete care for the athletes representing its school. To be sure, the serious injuries which require immediate attention by a physician or surgeon are promptly taken care of. But the seemingly minor injuries which aren't bic aght to the attention of the doctor are the ones that usually cause trouble and disability.

The average doctor simply doesn't have the time to devote to the reconditioning and rehabilitation of injured athletes. And the coach doesn't have the time or the exacting knowledge required to work long hours with his injured boys,

Many injuries, at onset, seem to be of no importance and consequently are overlooked by the athlete and coach until the injury has progressed to alarming proportions of pain and disability

As stated before, the coach with his many coaching and teaching duties simply hasn't the time to devote personal, individual attention to the many, many bumps and bruises, cuts and abrasions, strains and sprains which are constant companions of bodily contact athletics. This careful attention and care is the job of a person schooled and experienced in the field.

RUBBER TILE FLOOR

But back to our training room. At first we had a concrete floor which required a lot of mopping, yet never seemed to be clean. Again the school maintainance people came through and in one day put down a fine rubber tile floor, laid directly over the cement floor. This not only improved the appearance of the room but made our work in keeping it clean much easier. It was also a heck of a lot easier on the feet.

We consider our whirlpool, or hydrotherapy tank, our most valuable piece of equipment, with the shortwave diathermy a close second. Of course the infra-red lamps and the Medcolator are used constantly, all being prescribed for specific types of injury.

Our new exercise bicycle has proved a fine addition, helping so much in keeping tonus and size in the quadriceps muscles following knee injuries. We use it in conjunction with weighted boot or progres-



Did you know that you can quickly and automatically transform one gymnasium into two? Or that you can just as easily convert it to a large auditorium? You can . . . and just by turning a key . . . when you have R-W Fully Automatic FoldeR-Way Partitions!

Fully Automatic FoldeR-Way Partitions, designed and constructed to fit any size area, are electrically operated, opening and closing smoothly and silently at a turn of the switch key. Each partition section automatically locks firmly to the floor without bolts or tracks. Acoustically engineered and insulated sections are 3 inches thick to provide maximum "sound stifling effectiveness."

For greatest space flexibility, smooth and silent operation, and years of trouble-free performance, more and more architects and school boards are specifying R-W Fully Automatic FoldeR-Way Partitions. Write for Catalog A-99 and get complete details showing how FoldeR-Way can help solve your space problems.





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For bruises and sprains, the Jacuzzi fits into any tub to stimulate circu lation and

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Name

Address.



Hose attach-ment permits direct appli-cation to neck and shaulders.

CHOOSEY BUY JACUZZI

sive resistive exercises. It has also proved a valuable supplement to the ankle exerciser in cases of strains or sprains of ankles.

On the advice of our doctor, we're using the exercise bicycle daily in the treatment of an athlete who suffered an intercondylar fracture of the femur with no displacement. The boy has been on crutches for a month and a half, with no weight bearing on the injured leg. He gets whirlpool and diathermy treatments daily and rides the exercise bicycle from six to ten miles a day, with the tension screw set for very little tension.

FASTER RECOVERY

The fracture is healing well and the boy has had a loss of only onefourth of an inch in the circumference of the quads three inches above the patella and of one-half an inch ten inches above the patella. Of course, the fracture wasn't severe and the exercises were used only upon the direct advice of the physician. But in this case we do feel that once the boy is allowed weight bearing on the leg, his recovery to normalcy will be much faster due to the small amount of atrophy of the quadriceps while off the leg.

We use ice packs on many acute strains, sprains, contusions, etc., and use the rubber-lined cloth bags with wide cap. We keep a few 9" and 12" bags in both our training rooms. The room at the fieldhouse has the ice container, while the ice at the high school is kept in the cold locker in the cafeteria. We have 50 pounds of crushed ice delivered to the fieldhouse every practice day and 100 pounds delivered on game days.

As most of our football playing takes place during warm weather, we make extra good use of the crushed ice after practice, giving a large cup of ice to each boy to eatrather than have him drink large quantities of water immediately after practice.

As trainer for the Brazosport Independent School District, I'm responsible for the care and treatment of the athletes of six schools, embracing two senior high schools and four junior highs. (The elementary schools don't participate in organized interschool athletics.)

The six schools field a total of 11 football teams during season, comprising about 350 boys. The trainer arranges physical examinations for every boy participating, at the beginning of the season. Doctors of the area graciously provide their time and services for these examinations.

After a boy has been declared physically fit to participate, he's provided with complete equipment. This equipment is bought with one factor in mind-safety. The trainer and the coaches view and discuss many types and makes of athletic equipment before buying - always basing their decision on the protective value of the piece.

One piece of equipment with which we've had outstanding success in football is the rubber mouthpiece that attaches to the chinstrap of the helmet and fits into the mouth while covering the outside surface of the lips. For the past three years, we've adopted this piece as standard equipment for every boy in our district, excepting the quarterbacks, who have a choice of a plastic bar on their helmet or the type of mouthpiece that's individually fitted to the boys' teeth. In these three years, we've had no injuries to the teeth or soft tissue of the mouth (while the boys were wearing their mouthpieces). In fact, we've had only two injuries to teeth in this period, which shows us that the boys like the piece and will wear it.

We certainly do not feel that our training room and program is unique in any sense. While proud of our accomplishments and improvements to date, we realize that we've just scratched the surface toward a complete program of care and physical training for our students.

Of course we're more fortunate than many to have such equipment to work with, but we sincerely believe that everyone can take a long stride toward better care if they'll keep their existing facilities neat and clean and use the equipment prop-

After all, the oldest and still best piece of rehabilitative equipment a coach or trainer possesses is his hands-and it costs practically nothing to keep them in good working order!

FOUL-SHOOTING POSTER

A NEW foul-shooting poster, especially designed for bulletin-board use, is available free of charge from the Basketball Division, Converse Rubber Co., Malden 49, Mass.

Printed in three colors on special latex-impregnated paper, this 17 by 21 inch poster features Bunny Levitt, world's free-throw champion, in a series of sequence pictures demonstrating the two-handed underhand shot

The pictures are large and sharp, and the caption analysis superb. Bunny knows whereof he speaks-using this method, he once made 499 throws in a row-the world's record.

NEW FREE Catalog-Write



Above: Skinner's Genuine Tackle I will

POWERS

MANUFACTURING CO. WATERLOO IOWA



Teachers! Here's your FREE "Textbook" for a Good Grooming Course!



IT'S yours for the asking! This authoritative new booklet helps you teach your students the importance of good grooming. It's done in entertaining comic-strip style and teaches boys an earnest lesson—that good grooming habits are essential to success.

DEVELOPED BY TEACHERS

This booklet was produced by Pictorial Media Inc., with the assistance of practicing teachers, and has been tested with excellent results in hundreds of classrooms. In story form, it demonstrates to boys from 12 to 17 the social advantages of good grooming habits such as neatness in dress, hair, dental care, bathing, etc.

TEACHER'S AID

James J. Heaphy, B. S., M. S. Curriculum Coordinator, Board of Education of New York City, has written a brochure of suggestions for teachers to accompany this booklet. Mail coupon below and we'll send you a supply of booklets plus a copy of the brochure for teacher's use. It's FREE, a public service of the Wildroot Company.



	ompany, Dept. C-2 Buffalo 11, N. Y.
"Turnabout" f	ne the grooming booklet or students and copies by's Teaching Guide, I plan to ade(s)
Name	
Address	
City	State
I teach (name a)	course)

Athletic Field De Luxe

(Continued from page 8)

The site chosen was one which had, oddly enough, been rejected previously as unfit, so the construction problems involved may well be imagined. But it was, almost literally, the only spot left.

The board of education owned an 11-acre strip of land approximately 2,000 feet long by 450 wide, two blocks from the high school, bounded on one side by the Hutchinson River Parkway and on the other by Hutchinson Creek. The area was narrow, rocky, and hilly with a comparatively small flat area or "field" which was used chiefly by local youngsters for sandlot type games and occasionally by the football team for practice.

Because the creek at low tide gave off a highly repulsive odor, the place was traditionally known all over town as "Stink Field." In time of heavy rain and high tides, the field would be almost completely flooded. The only really flat part exuded broken glass and jagged rocks. A less inviting spot for an athletic plant could hardly have been found.

The first step was to level off the area. This involved the removal of one small hill and part of a large one. In the process, 60,000 yards of rock were taken out—to be used later in filling part of the creek.

Next, the entire level of the site had to be raised to obviate flooding from the creek. This part of the work was made more difficult because compost, which had accumulated over the years, had to be removed to get to firm footing for a solid fill. The portion of the site involving the football field was finally raised five feet; the baseball and practice areas, three feet.

Tile drainage was installed under the entire surface, pitched toward and draining into the creek. Sand and gravel used in the fill also gave added security here. The fine drainage job which was done may be attested by the fact that, during the record rains of last August, the field remained almost entirely free of water. Had such rains occurred before the raising and draining of the area, it's certain that the field would have been inundated.

The next problem was how to take the stink out of "Stink Field."
The Hutchinson Creek had, over the vears, eroded a part of the land, forming a small inlet which became

a malodorous black mud flat during low tides. So this inlet was dredged and filled in to a line 65 feet out from the original bank. Fortunately, this not only eliminated all odors, but also added a fairly sizable area of usable space to a field whose chief drawback was its narrowness.

To stop any further erosion, a stone facing was placed on the bank of the creek for the entire length bordering the field; and a bridge, built on piles, was placed over the stream to give access to the field from the parking area on the other side.

Finally, the site was enclosed with fencing ranging from 20 feet high on the Parkway side to 7 along the river bank.

Perhaps the outstanding and most unusual feature of the entire project is the fieldhouse, situated conveniently in the center of the area, right between the track-encircled football gridiron and the baseball diamond.

This building has made it possible for all football, cross-country, track, and baseball athletes and coaches to have dressing, showering, and storage facilities away from the high school itself where locker room conditions had become badly overcrowded.

This fieldhouse is a one-story building, 85 feet by 70, constructed of concrete blocks at a cost of \$80,-000. The exterior is painted, while interior walls have a special glazed finish.

In it are three large locker rooms and two shower rooms, a coaches' office, and a first aid and trainers' room. It also includes a drying room where football uniforms and other such equipment can be hung after practice sessions and games. Next to it is the equipment storage room.

Off one shower room are electric washers and driers that enable us to wash and dry most of the athletes gear right there on the spot.

At one side of the building is a special section containing rooms and storage space to be used by the local recreation commission, which will have access to Parkway Field for some of its activities. There are, of course, rest rooms available to the general public when games are held at the field.

During football games, one half of the building may be completely shut off from the other so that both



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Approximate shoe size 7-9 Small Brace 9-11 Medium Brace 11-13 Large Brace All Adjustable

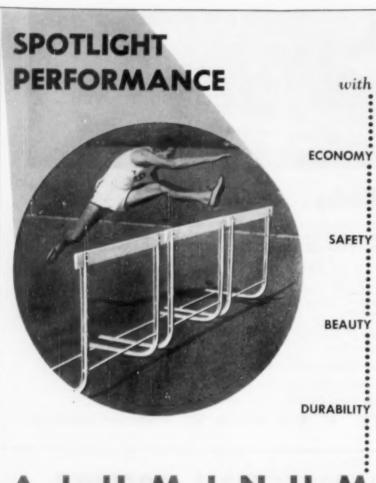


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teams may have absolute privacy for changing, showering, and meeting between halves. Finally, there is a combination garage-outdoor equipment storage room.

Another notable feature of Parkway Field is the \$13,000 running track (described elsewhere in this issue). This quartermile cinderpath is 24 feet wide all the way around. which makes it the widest in Westchester County and one of the widest in the East, Furthermore, it has concrete curbing on both sides. another refinement not often found on high school running surfaces. Field event facilities are exceptional with two broad jump pits, two pole vault pits with clay runways, and a semi-circular high jump apron with a 60-foot radius.

The four tennis courts are allweather hardtop, and occupy a second level of the field, slightly above the gridiron and track. Behind them is another large grass field, intended mostly for elementary school use but which will undoubtedly also accommodate field hockey, soccer, and other games from time to time as needed.

As has been previously stated, a cross-country course has been laid out around the whole site. Permanent stands with a seating capacity of 1000 are set on the Parkway side of the gridiron (with the field event runways and track finish line right in front of them); while movable bleachers were placed on the opposite side of the field last fall and will be moved over to the baseball diamond for springtime use. The seating capacity will probably be increased in the future.

So that the turf on the gridiron may be preserved for games only, the layout also possesses a large grass practice area with sufficient space to accommodate as many squads as any school is likely to have.

Part of one of the hills which had originally been on the property has been preserved at one end of the site, and the plan is to develop this into a picnic area and a spot for Boy Scout activities.

Pelham has waited a long time for its athletic field, and there were years when we despaired of ever having one. Now, that the field and fieldhouse are realities, the whole town is beginning to feel it's been worth waiting for.

Pelican coaches and athletes who once had to contend with obstacles and inconveniences and who looked with envy at the athletic plants of neighboring communities can now hold up their heads and point to Parkway Field as tops!

Pelham's Track

(Continued from page 9)

parable to that at Randall's Island Stadium in New York where the IC4A and National Championships have been frequently held.

In front of the stands are two runways for broad jump and pole vault. Both runways have pits at each end (four in all), so that these events may be run in either direction. These strips have an 18-inch base of cinders and a top 4-inch layer of clay with a one-inch "crown."

All five pits have, at the base of their excavations, a two-foot layer of cinders and crushed rock to improve drainage.

At the opposite end of the infield from the high jump, circles for shot put and discus will be installed this spring.

Not the least advantageous feature of the whole set-up especially from the coaching point of view, is that the entire track and field area will be used, during the season, solely by the track squad. The baseball diamond and practice area is on an entirely different part of the grounds, as are the softball fields and tennis courts; so that there can be no interference of any kind with the track squad as they work out or conduct meets.

Permanent stands with a seating capacity of about 1,000 parallel the home stretch. All races, except the low hurdles (the straightaway is on the other side of the field), will finish directly in front of the center of these stands. There's ample room on this stretch for the running of the 100 and the high hurdles.

Right next to one curve is the new field house (described in detail elsewhere in this issue). The track squad has its own locker room and showers, separated from the quarters of the baseball team, and there are also an office for the coach, a first aid room, and storage space for all track equipment.

Near the other curve of the track is a hilly, wooded area, part of the cross-country course. This is a convenience which the coach is especially glad to have since he has, for some time, been a believer in a certain amount of hill work and "fartlek" type cross-country running.

To complete the "rags to riches story," the local P.T.A. has donated a complete set of hurdles to the field and the school's General Organization has paid for an outdoor public address system which will be used at all meets conducted on the new track.

SPIKES STAY IN ... LAST LONGER!

After extensive tests and experiments, last fall we decided to equip our Swedish OLYMPIA Track Shoes with steel plates to which the spikes are WELDED! Dies and plates were made to our specifications, so as to allow the maximum of security for PHILLIPS detachable spikes with a minimum of weight increase

The results have fully vindicated our efforts. Of all the track shoes shipped this year, we have not been notified of a single shoe where the spikes broke off or loosened. In fact, so popular have the OLYMPIA shoes become, that it was not until late in the season that we were able catch up with the flood of re-orders which we received.

"TWO-LEVEL" ARRANGEMENT FOR MORE PUNCH!

The "two-level" arrangement of the OLYMPIA, with the two rear spikes %" two rear spikes %" shorter than the three front spikes has worked out beautifully, adding more "drive to the shoe.

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with all-crepe-rubber sole and the Model #716 with the conventional 6-spike arrangement, but this year welded to the steel plates.

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An Olympic Fund High School Track Meet

THE approach of the Olympic Games every four years gives rise to three trenchant problems: first, its subsidization through voluntary funds; second, the stimulation of interest; and, third, the development of promising material.

It was with these problems in mind—promoting dollars for the Olympic fund, stimulating enthusiasm on the high school level, and developing youthful material—that the Marine Reserve Units of St. Louis originated and sponsored the first Olympic Fund High School Track and Field Championships last spring.

The spontaneous acceptance and success of the meet made us feel that we had developed "something" extremely valuable that could well be studied and adopted by other communities.

Our basic idea was to conduct a topnotch competition with an Olympic flavor as a finale to our regular spring track season. Since an open meet among all our high schools was neither possible nor desirable, we settled upon a rather unique qualifying device embracing the 75 schools in our area.

A committee of six high school coaches took over the screening of the contestants. Every major meet during the season came under their surveillance. In the track events, they timed the first three boys in each preliminary heat and the first five finishers in each final. In the field events, they recorded the best measurements of the six men qualifying for each final.

Thus, no excellent performances were overlooked. All in all, the 16 outstanding athletes in each event were selected. As a build-up for the Olympic Fund meet, the local newspapers published running accounts of the "top 16's."

Since it obviously was impossible to run a streamlined championship meet with so many competitors in each event, we decided to run a qualifying meet several days before the Olympic Fund finals. We seeded the boys and ran them in two heats, with the eight best performers in each track event and the six best in each field event qualifying for the championship meet. (Additional men were included in some of the events.)

The program and schedule of events for the Olympic Fund meet are shown in the accompanying charts. As you can see, the events included the 100, 220 (staggered around one turn), 440 (two turns, lanes all the way), 880, mile, 120 high hurdles, 440 relay, mile relay, pole vault, high jump, broad jump, shot put, and discus. The 180 lows and the 880 relay were omitted since they aren't regular Olympic events.

As a prelude to the championship meet, a Decathlon event was held on the Thursday and Friday evenings immediately preceding the big meet. On the first evening, the boys competed in the 70 highs, 100, high jump, discus, and 220. On the second evening, they contested the 120 lows, pole vault, broad jump, shot put, and 660.

These events were scored on the basis of the "decathlon kit" devised by a California coach. Boys competing in the decathlon weren't permitted to enter the open events on Saturday.

The actual meet itself was organized and conducted in the following manner.

MEET ORGANIZATION

Three groups—the local Marine officers, a prominent Citizen's Committee, and the area's track coaches—cooperated in organizing and presenting the meet. Each group handled specific duties familiar to its members. The Citizen's Committee guaranteed that all expenses of the meet would be paid, while the Marine officers gained state and A.A.U. sanction and acquired the use of the public school stadium.

To satisfy National High School Federation eligibility rules, the meet had to be sanctioned by the A.A.U.

The boys had to compete unattached, but were allowed to wear their school uniforms (with school permission)

The coaches set up the contestants' selection (as explained) and the technical aspects of running the meet

COMMITTEES

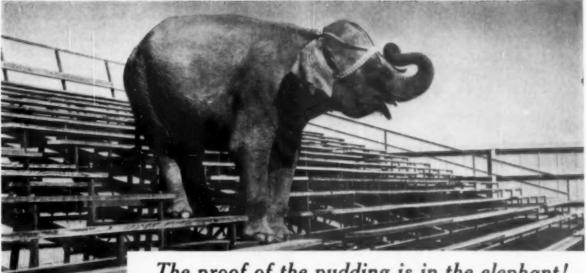
Five committees—Ticket, Program, Publicity, Field, and Special

CEREMONIAL PROGRAM

- 7:45-Parade of Athletes
- 7:55—Introduction by Mr. Edward Arthur, Chairman, Olympic Fund Track and Field Championships
 - Committee: Honorable Raymond R. Tucker, Mayor of St. Louis; Col. Paul E. Wallace, USMC
- 8:05—First-Lt. Robert E. Mathias, USMCR
- 8:10—Official Opening of Meet by Lt. Mathias
- B:15—Flag Raising—National Anthem—Release of Birds
- 8:20—Torch Lighting Ceremony— Torch Bearer, Decathlon Winner
- 8:30-First Call

SCHEDULE OF EVENTS

- 7:30—High Jump, Pole Vault, Discus
- 8:30-Broad Jump
- 8:45—Shot Put, 120-Yard High Hurdles
- 8:55-100-Yard Dash
- 9:05-One Mile Run
- 9:20-440-Yard Relay
- 9:30-440-Yard Dash
- 9:40-880-Yard Run
- 9:50-220-Yard Dash



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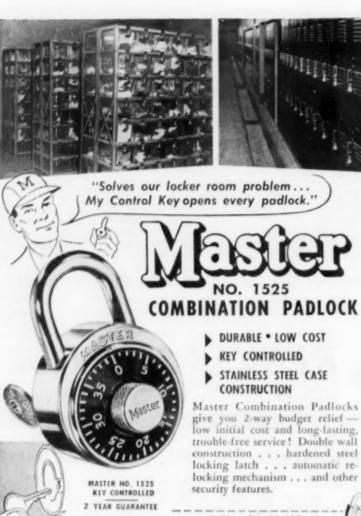
A Check List Of Spring Needs

Steel vault pales Dow metal z-bars Dow metal x-bars
Canvas tarpaulins
Track judges stand
Victory award stand
Training room table
Bd jump take off beard
Discus, shots, javelins
High jump standards
Vauling standards
Vauling standards
Valley ball standards
Rubber soled track shees
Discus safety screen
Trampolin for wauliers
Bd jump straight-edge
Trampolin for vauliers
Bd jump straight-edge
Whirlpool bath
Shot-put toe-board Javelin toe-board Measuring tapes Competitors numbers Finish lineyarn Shot put ring Discus ring Warting pistols Relay batons Mest record cards Meet record cards Track drag Run-way markers Distance Indicator



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The book all coaches are talking about. Brutus Hamilton, 1952 Olympic Coach says: "The Lamarway Track Score Book is a most satisfactory scoring device. It incorporates everything that's essential for accurate and quick scoring. This is a distinct step forward in the field of athletic publications." \$2 postpaid.

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Events-were formed to carry out the meet's details.

The Ticket committee arranged for the printing, distribution and collection of tickets and money. The Citizen's group handled this committee. Advance tickets were promoted through a local movie chain, though the majority of tickets were sold at the gate. The schools were not asked to sell them.

Programs included the events in chronological order, with the final qualifiers listed; plus the existing city, district and state records and record holders. Also included were spaces for the top three placers. The committee produced a 16-page booklet that sold (non-profit) for 10¢ apiece.

Publicity was freely donated. In fact, everyone approached responded enthusiastically. To assure a national attraction, the Marine Corps granted Lt. Bob Mathias leave to attend the meet.

Bob came through like . . . well, the Marines! He did wonders by placing himself at the disposal of press, radio, television, and, more important, the contestants. He made himself available for questions, autographs, or just plain conversation, without restraint.

That the public was made aware of the event was proved at the box office, where approximately 4,000 paid admission.

Field: The coaches provided membership for the Field Committee. They set up the method of selecting the contestants, established qualifying meets, did the timing at the 12 qualifying meets, decided how the decathlon would be conducted, and whom to invite. And, finally, on the evening of the meet, they turned out in force, not as coaches, but as officials for all the events—dressed uniformly in dark trousers, white shirts, and white sun helmets.

Thus, each event was judged by an individual not only familiar with the coaching techniques involved but who probably had specialized in the event in his undergraduate years. This, along with the Olympic atmosphere created by the Special Events committee, made the meet a technical success.

Special Events: To do justice to this committee, a complete report of the meet is necessary.

THE FINAL MEET

The opening ceremonies were patterned after those of an Olympiad. A parade of participating athletes, led by a color guard, circled the track and stood facing center.

Next, short introductory speeches were made by visiting dignitaries, after which Lt. Mathias officially opened the meet. This was followed by the flag-raising ceremony and the release of 200 white pigeons who, as if rehearsed, circled the field and headed out of the stadium.

The winner of the decathlon was given the honor of lighting the Olympic flame after running into the stadium and around the track with the symbolic torch. He was then introduced along with the second and third placers, and all were awarded medals on the stairstep platform located in front of the stands.

All of the track and field events were conducted in plain view of the spectators. In Olympic tradition, the 220 straightaway was eliminated, Instead, the races over 120 yards were run around staggered turns. The 440 was run in lanes all the way.

A network of walkie-talkies on the field enabled the field judges to notify the announcer prior to an outstanding performance. This information was immediately relayed to the fans; and, as a result, the field contestants gained a share of recog-

In the track events, the eight qualifiers were introduced by lanes just before the start. The top three were awarded medals before another race was introduced.

The job of announcing was delegated to a track coach, and was planned and executed for the spectators' benefit. As each contestant was introduced, a little of his background in track plus other school activities was presented. Each event was explained in regard to the type of boy best suited for it and some of the training required. Existing records in the event were discussed and comparisons with them were made after the race.

This was done in non-technical terms and was well-received by the fans. Sufficient time between events was allowed so that this information could be given. The contestants were kept away from the competitive scene to give everyone a clear view of the starts and finishes.

This is probably the most critical problem in a large meet. Eliminating congestion and informing everyone of what he was seeing did much to boost the meet in St. Louis.

Everybody was gratified with the end result. The original objectives were achieved with very little confusion. The Olympic Fund benefitted by approximately \$1,000 after the books were closed, and another meet was planned for 1956.

Both the coaches and athletes feel certain that the sport in this area received a vital shot in the arm. Two other cities have already expressed interest in a similar program.

A RADIANT-HEATED NATATORIUM

THE new Boys Club Natatorium in Norfolk, Va., is an attractive 110' by 60' building containing a pool 75' long and 35' wide. Modern facilities include a radiant heating system of wrought iron pipe coils embedded beneath the ceramic tile surfacing of the pool deck, and banks of windows that provide natural illumination in daylight hours.

The radiant heating system not only protects against drafts and provides warm floors for the boys, but also carries much of the overall heating load. While inside controls are set to allow the radiant heating system to carry the heating load, supplementary space heating is furnished in the event that high heat loss during extremely cold weather drops room temperature below 75

Maximum floor temperature is established at 90°, and ventilation is provided by a manually operated electric fan on a wall near the roof of the building

The natatorium also features a high ceiling provided by arched-roof construction with barrel trusses. Net cost of the structure, including pool, showers and locker facilities, came to about \$110,000.



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"Here Below"

(Continued from page 5)

Johnson, Rube Waddell, Larry Lajoie, Frank Chance, Roger Bresnahan, Hans Wagner, Johnny Kling. Three-Fingered Brown, Ed Walsh, Fred Clarke, Addie Joss, and Mike Donlin, among others.

No fewer than NINE of these players eventually found their way into the Hall of Fame. But do you find Mr. Sunday chortling over his prime collection of greats?

No. sir! He writes-now get this: "I do not believe the individual players of today are superior in ability to those of twenty years ago."

A moldy fig is moldy fig-in 1908 or 1955, Sunday, Monday and always.

STREAKS OF LIGHT

WHILE the nation's football historians have been busily keeping count on the Oklahoma winning streak, which reached 30 at the end of the season, a couple of high school clubs have been quietly weaving some far more impressive skeins.

Massena (N. Y.) H. S. now shows a 47-game winning streak, while East St. Louis (Mo.) H. S. is proudly brandishing a 42-game skein.

The coaches involved in these streaks are definitely in the super class. Massena's mastermind is a 35year-old gent named Mike Nicholas, who shows a 54-4 mark for eight years of coaching-which comes to a very nifty .931 winning percentage.

Most of the East St. Louis skein was woven by the fabulous Wirt Downing, who turned the coaching reins over to Fred Cameron in 1955 after fashioning a tremendous career record of 144-18-7. His .889 winning percentage might well be a record for coaches in the 20-year class.

Like many other superior high school coaches, Wirt has been elevated to the principalship of his school-which once again proves the close relationship between successful coaching and high-level administration.

PEP TALK SUPREME

NICEST pep talk of the 1955 season was the one delivered by Adam. Walsh to his Bowdoin College team after the last game. Bowdoin had just been trimmed 54-8 by the U. of Maine, and the boys were standing around the locker room battered, bruised, and humiliated.

Coach Walsh motioned for his squad to assemble around him. In a vibrant voice, tainted neither by resignation nor defeat, he said:

"In the won and lost column we had a lousy average. But I want you to know that I'm the proudest coach in the country. You never quit trying this year . . and Steve (Captain Steve McCabe), I want to say, out of my 28 years of coaching, you led and acted like a winner.

"Just one more thing . . . Nobody leaves this room with a chin drooping. When you go out of here, walk to that other room and shake hands with the Maine football team and with their coach, Hal Westerman. But nobody is ashamed, remember. Nobody's ashamed. You don't ever have to be when Bowdoin is your college. That's all."

When Adam Walsh was centering the ball for the fabulous Four Horsemen of Notre Dame, Knute Rockne called him the best center he had ever coached. In the 30 years that have elapsed since that day, Mr. Walsh has certainly learned to "carry the ball" as well,

TROUBLE IN PARADISE

WHEN Governor Griffin of Georgia excoriated the football forces of Georgia Tech for accepting a bowl bid against a team that featured a Negro player, he touched off a conflagration that burned high before it fitfully subsided.

Possibly the most trenchant commentary on the affair appeared in a paper right smack in the Governor's capitol in Atlanta, Here's how Furman Bisher, crack Southern sportswriter, summed up the matter in his column in The Atlanta Constitution:

Georgia Tech goes to the Sugar Bowl as originally scheduled. The state's battle line of segregation is as clearly drawn as before. Nothing has been accomplished. I hate to think of what the average Georgian must look like to the average citizen of Spokane, Wash., or Duluth, Minn., or Montpelier, Vt., or even to those of Birmingham, Jacksonville and New Orleans.

You can't escape being one of the mob, even if you think differently. All of us look the same to those people, for this unsightly mess is the work of the people we elected to office.

I like to feel that there is a certain democracy in sports that is found in no other field. This has been a blustering intrusion of that field by some polticians who chose to pitch their grubby battle on sports grounds.

This intrusion took a swipe at everybody, for in some way or another every-body in the state will have his right to choose the kind of sport or pastime restricted. Certain unlegislated barriers between white and colored races will always exist. Common sense and social custom dictate these.

In the field of team sports, however, there is no violation of these barriers. To the contrary, sports have been a leader in establishing a better understanding between all races...

Never in the past has Georgia or Tech been required to get the governor's permission to play a football game. How is it, then, that President Van Leer should have called Governor Griffin and requested permission this time? Georgia never asked permission to play St. Mary's in 1950 or Pennsylvania in 1952. Nor did Tech ask permission to play Notre Dame in 1953 (all of whom featured Negroes).

It is unjust that Georgia Tech, Van Leer and Bobby Dodd should be innocent victims in this discouraging affair. I was delighted that Georgia students rose up and joined arms with Tech in protest, though the method of expression certainly was questionable.

It stands, though, that they are in it together to this extent: that whatever goodwill the two schools have achieved on the athletic field has been virtually wiped out by this distasteful case of political interference. We would all be ever so grateful if the political axe-grinders would carry their business elsewhere and leave the playing field to the players.

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CORNER OACH

Please send all contributions to this column to Scholastic Coach, Coaches' Corner Dept., 33 West 42 St., New York 36, N. Y.

WITH the N.Y. Knickerbockers trailing in the fourth quarter, Coach Lapchick decided to remove one of his stars. The fellow had been having a bad night and just wasn't doing the team any good.

The Knicks called a time-out and in the huddle Lapchick told the fellow

he was taking him out.

"Gee, Coach," the star complained, "we've still got a chance. Don't take me out. We need shooters out there."
"Not shooters," Lapchick answered
quietly, "scorers."

Most basketball programs are pretty dull affairs, with terse desiccated biographies of the players. Not so the Fort Wayne programs, however. They bear the imprint of somebody with a delightful sense of humor. Witness these tintypes

Corky Devlin: "Presenting Walter Devlin of the Atlantic City Devlins. A family of great restraint. Corky lived there all his life and never entered a single Miss America contest. He coached the Turkey national team last summer for the State Dept. Corky taught the Turks how to pass behind their backs. One of them made eight passes in a row and Corky came home broke."

Larry Foust: "Easy man to keep track of in crowds. He's a pivot man. Never turns around. Always pivots. he has several shots-tetanus, typhoid, etc.

Trainer Stan Kenworthy: "The players don't call him Doctor for nothing. He has to pay them, of course. When we don't have any injuries, he usually trips someone. This is known in his trade as job security."

A couple of football coaches were discussing what they'd like to do when they retired. "I'd like to be superintendent of an orphans' home, one. "No letters from parents."

"I'd like to be a prison warden,"

said the other. "The damned alumni don't insist on coming back.'

One day Coach Zuppke pulled Red Grange out of a scrimmage and admonished him. "Red," said Zup, "you are leaning every time your signal is called. You're tipping off just where you're going to carry the ball."

"How can I be tipping them off," replied Red, "when I don't know myself where I'm going with the ball?"

The high school hoop coach was trying to make a center out of a big, slow-witted 7-footer. Try as he could, he just couldn't make any headway with the boy.

Exasperated, he roared, "Haniotis, I've tried to teach you about 2000 things without any success. Doesn't that mean anything?"

Yes, Coach," replied the kid, "that means there are 2000 things we don't have to try again."

When Sweetwater Clifton joined the N. Y. Knickerbockers, he found trou-ble orienting himself to the tough, bruising pro game. A mild, gentle fellow, he let himself be pushed around under the boards.

Coach Joe Lapchick took him aside and gave him a lecture on the importance of battling the other guys. "Tell me, Sweets," he said in conclusion, 'can you fight?"

"Coach, I'm terrible," Sweets re-

In the very next game, a big Boston rebounder brought an elbow up into Clifton's mouth. Like a flash, Sweets hooked his left and crossed his right. The fellow went down-and out.

"Sweets," Lapchick murmured afterward, "I thought you said you couldn't fight."

"I didn't say that, Coach," replied the gentle giant, "I said I was terrible. When I get mad, I get so terrible it takes seven guys to hold me.

Toward the end of the 1949 season of the now defunct All-America Conference, the angels of the Dallas Tex-

ans folded their wings and silently stole away-leaving the players' last paychecks behind. From the paymaster's window, the squad moved directly to the practice field, where Coach Jimmy Phelan called them together.

"I'm not saying that your checks are bad," he said. "But I want every man to take one lap around the field and then run for the bank.

Last fall a committee of Soviet housing experts descended upon the city of Chicago. As their plane moved up the Lake Michigan shoreline, the comrades gawked at the armada of sailboats, yachts, and cruisers anchored in the Jackson Park Harbor

"Ahem," murmured Comrade I. K. Kozuilia, commissar of the visiting firemen, "the Chicago fishing fleet!"

"Nope," replied the American guide. "Yachis of the workers."

While college coaches are struggling to keep the "foot" in football, our high school men are still keeping a "hand" in the game. On November 19, Billy Brasher, Kingsville (Tex.) H. S. sophomore, tossed 62 passes against Alice H.S.! Though he completed 22 for 203 yards, his team lost 34-0. Which proves that you can't conquer Alice by making a lot of passes at her.

Down Medina, Tex., way, the passing fancy is a 180-pound quarterback named Don Le Stourgeon-who's no poor fish when it comes to heaving the ball. He's reputed to have thrown a 75-yard td pass against Utopia H. S., though his coach says it was closer to 65 or 70 vards.

In an exhibition for an unbelieving sports scribe, Le Stourgeon tossed three passes over 70 yards and three others about 65 yards!

The poor pug had been hit on the chin once too often and had to be sent to a home for the mildly deranged. They put him in a room with another ex-fighter. Next morning he complained to the attending physician.

"What's the idea of sticking me in a room with that crazy guy?"

"Well, it's the only room available just now," placated the doctor. "Is your roommate troublesome?

"The guy's nuts!" replied the disturbed fighter. "He keeps looking around and saying, 'No lions, no tigers, no elephants'-and all the time the room's full of 'em!"

The guard was big, strong and tough but, well, not the brightest kid in the world. Before the team's opening game, the coach installed a blocking system which changed the assignments on the line of scrimmage. If the opponent didn't line up where anticipated, the guard and tackle could switch assignments by calling out the name of a state-any state.

The coach drummed this into the dumb guard's head. "Remember," he said, "if the guy opposite you lines up on your outside, switch assignments with the tackle. Just tell the tackle the name of a state—any state that comes into your mind. That'll be a private signal between you. Get it?"

The dumb guard said sure, sure,

The dumb guard said sure, sure, and went out to joust with the enemy. Sure enough, a critical situation arose late in the third quarter. The guard set up on the line of scrimmage and found his man on his outside, where he couldn't get to him. This was the time to switch assignments.

The dumb guard cudgeled his brains. What was that switch signal? Aha, it was the name of a state—any state. The guard pondered a moment, then a light dawned. He turned to the tackle and brightly snapped, "Schenectady!"

The owner of the Washington Redskins was sorely grieved when only 17,000 fans turned out to see the N.Y. Giants massacre his ferocious Redskins. He lambasted the New York fans for their dereliction of duty and warned them that the Giants would move out of town if their fans didn't break down the fences to watch 'em in future weeks.

In his column (N. Y. Post) the following week, Al Buck commented tartly and trenchantly:

"Pro football fans, whose absence from the Polo Grounds last week hurt George Preston Marshall so much he wept in his wet wash, will have difficulty avoiding the Giants Sunday. The gridiron will be in everybody's parlor, as the game with the Browns in Cleveland is to be played on Channel 5, but for the reluctant there is a way out . . . A twist of the dial will bring in Herbert Hoover for a full hour on Channel 4."

While covering the World Series for his home-town paper, Jim Piersall got his first look at Billy Rigney, the new Giant manager who piloted Minneapolis in 1954.

"Gee, he looks old," exclaimed the Red Sox ball hawk. "It must be that short right field fence in Minneapolis."

Since leaving the Brooklyn organization, Charlie Dressen has been suffering from a bad case of sour grapes. In the middle of the 1955 season, with the Dodgers running away with the National League pennant, sweet Charlie asserted that the Dodgers' days were numbered.

"The veterans haven't got it any more," he claimed. "Jackie Robinson, Carl Furillo, and Pee Wee Reese can no longer hit good pitching."

Reese waxed indignant when he heard this vouchsafement. "Dressen is crazy," he exciaimed, "I NEVER could hit good pitching!"

The dichard Giant fan was asked whom he would try to save if his brother and Willie Mays were drowning.

"Hell," he roared, "my brother can't even hit minor league pitching!"

(Continued on page 70)



School and college coaches report-

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New Books on the Sport Shelf

. KEN LOEFFLER ON BASKETBALL, BY Ken Loeffler. Pp. 197, Illustrated-photos and diagrams. New York: Prentice-Hall, Inc.

ONE of the greatest basketball coaches of our day, Ken Loeffler has been turning out winners since graduating from Penn State in 1924. He has coached both in the pro ranks and on the college level-the St. Louis Bombers, the Providence Steamrollers, Geneva College, Yale, and most recently La Salle. In his six years at La Salle, he won 144 games and lost but 29, capturing the N.I.T. crown in 1952 and the NCAA title in 1954.

Now in his first year at Texas A. & M., the shrewd and colorful hoop mentor is breaking a long-time promise never to write a book. ("Why should I write a book and let everyone become as smart as I?"

Maybe age has mellowed this highly versatile gentleman-in addition to being a coach, he's a writer, poet, law professor, telecaster, and musicianbut whatever the reason he's finally gotten around to putting his hoop theories in print.

In Ken Loeffler on Basketball, he fast-breaks all over the court, popping up his ideas on every phase of the game. He touches on selection of the material, individual offensive and defensive skills, team offensive and defensive patterns, training; pre-game, game, and post-game procedures, schedules, officiating and rules, the pro game, and tips to high school

His theories are both provocative and practical, and are presented in a highly literate manner. Loaded with colorful anecdotes, his book makes highly enjoyable and extremely helpful reading

. WEIGHT TRAINING FOR ATHLETICS (Track and Field). By Oscar State. Pp. 90. Illustrated, New York: SportShelf, \$1,50.

THIS booklet by an internationally known weight-lifting authority covers the subject thoroughly with specific reference to track and field. It details and illustrates the objects, methods, progressions, and exercises for each

As the forward states: "The case for weight training can be expressed in simple terms; whatever his event an athlete needs to be strong to perform the technique with the maximum efficiency and, in fact, some particular techniques cannot be performed unless an extra degree of strength is available.

The author is frank enough to admit that weight training alone isn't the key to success in track and field.

It's only one of the many aspects of preparation.

. LONG JUMPING (Broad Jump), By H. A. L. Chapman. Pp. 12. Illustrated, New York: SportShelf. 25¢.

THE seventh pamphlet of instructional tips produced in filmstrip style under the direction of the chief athletic coach of Scotland, embodies nine fine black-and-white pen sketches offering a sequence view of the broad jump. Prepared in accordion-fashion which opens up to a length of 40", the pamphlet can serve as a fine locker-room chart.

The other 71/4" by 41/4" folders in this series cover middle distance, hurdles, high jump, sprinting, sprint start, and discus. The American distributors, SportShelf, may be reached at 10 Overlook Terrace, New York 33,

· SCIENTIFIC WEIGHTLIFTING EXERCISES DESIGNED FOR TRACK AND FIELD EVENTS. By Otis Chandler. Pp. 13. Los Altos, Calif.: Track & Field News. 25¢.

ONE of the earliest pioneers in the field of weight training, Otis Chandler, former Olympic shot-putter, does an exceptionally fine job of delineating his theories and exercise program in this 13-page set of sheets.

He builds a scientific case for weight training, offers a specific exercise program for all events, and offers some interesting general information on track athletes and coaches who've used it in their training.

The material is available for a twobit handling charge from Track & Field News, Box 296, Los Altos, Calif.

100 BASKETBALL DRILLS

HOOP instructors looking for the perfect practice aid for their varsity and phys ed teams will find the answer in Eddie Hickey's superb book of drills (100 All-Purpose Basketball Drills). In it the famous St. Louis U. coach diagrams and describes the best 100 drills ever devised-as relayed by outstanding high school and college mentors. The drills cover fundamentals, shooting, continuities and weaves, giveand-go series. warm-up patterns (including the famed St. Louis U. warm-up drill), two and three man plays, and fun-game drills. For your copy, send \$1 to The Coaches' Press, Box 231, Old Chelsea Station, New York 11. N. Y.

Safety in the Gym

(Continued from page 16)

backward somersault definitely requires it.

When the student can perform the backward somersault with satisfactory consistency, the next job of the spotter is to hold him by the shirt or by the belt and hand-spot him through the stunt.

After this, the student should be permitted to try the somersault with the spotter standing on a "side board." This permits the spotter to step in and help him execute the backward somersault or whatever stunt is being essayed.

The forward somersault can be hindered by an overhead mechanic. The device can actually stop the angular rotation of the stunt.

A twisting belt is recommended for the teaching of twisting somer-saults. Stress must be placed upon the necessity of completing the somersault even if the twist being attempted isn't successfully executed. Where this advice is followed, enough of the somersault can be executed to get the student into a safe landing position and out of harm's way—even if he isn't using a safety mechanic.

With the use of the overhead mechanic and the twisting belt, all dangerous stunts can be safely practiced and easily spotted by one

Many complicated skills can be easily practiced on the trampoline. The apparatus has actually promoted safety in the gym. For example, a double fly-away from the trampoline by practicing the double back somesault with the aid of a safety mechanic. The skills for the two stunts are analogous. In short, the practice of the double back somersault in the mechanic can easily provide all the skill necessary for performing the double fly-away from the flying rings or the high bar.

By the same token, the skills for the front or back somersault on the tumbling mats or for the back somersault on the parallel bars can be perfected through the practice of similar stunts in the mechanic on the trampoline.

THE RINGS (STILL AND FLYING)

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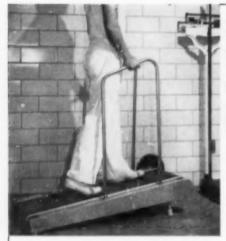


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up to the flying rings, promote the safety of the performer.

The use of chalk is necessary when working the rings. It absorbs the moisture from the hands and prevents slipping. The chalk (magnesium carbonate) is purchasable at the corner drug store. Available supplies should always be present at all apparatus requiring use of the hands.

All stunts to be performed on the flying rings should be practiced on the still rings. The use of extra padding or a large soft mattress-like pad under the still rings is recommended. This added padding will prevent the performer from injuring his head after a sudden snap-off from the rings.

The spotters stand alongside the still rings, ready to catch the weight of the descending legs. By controlling the descending legs, the spotter can slow down the full weight of the performer at the critical point or at the bottom of the swing.

Where the overhead mechanic is desired as a spotting aid on the still rings, the travelling overhead mechanic is most highly recommended. This mechanic always remains vertically overhead, since it moves along guy wires or a track on either side of the rings.

Thought must be given to the ropes when utilizing the overhead mechanic. For example, by having the performer reach over the top of the ascending ropes and then grasp the rings, the ropes will be clear after a dislocate is performed.

As progression from the elementary stunts to the advanced stunts is made, the strength of the body and the hand grasp will be decidedly improved. This increase in gripping strength and skill represents additional automatic safety controls.

The beginning swings on the flying rings should be kept at a minimum height, and the correct timing of the swing or pendulum beat of the body should be practiced. Correct methods of dismounting should also be stressed during the early phases of training.

The overhead mechanic is again the best device to be used for spotting on the flying rings. When using the overhead mechanic, always remember that it's better to have the ropes attaching to the safety mechanic overly taut to avoid the possibility of getting caught with a slack line or lines.

The danger spots on the flying rings are at either end of the swing and directly under the rings or at the bottom of the pendulum. These are the points at which spotters should be placed when the gymnast is working on a new stunt. The spotter should be alert for a mistimed pendulum or swing, a fall through from an attempted stunt, or the possibility of a snap-off.

The performer has the responsibility of practicing his stunts over and over again. Too often, he'll let his swing build up to a dangerous height without being able to perform the stunt to perfection. The performer should attempt a difficult stunt only when mentally and physically ready for it. He should not be talked into it.

By using the heavy padding at the dismount area, safety is assured and leg injury is prevented. Actually, the landing should have little or nothing to do with the execution of the stunt. The use of one or two two-inch pads isn't deemed sufficient to break the impact of a good landing or a landing on which difficulty is going to be encountered.

Spotters can spot the performer who has practiced with the overhead mechanic and is now ready to execute the stunt without mechanical assistance. The spotter must be in a position of readiness with his attention focused on the performer.

THE HORIZONTAL BAR

Though the horizontal bar is generally considered one of the more dangerous pieces of apparatus, a well-trained gymnast who uses it properly can go through his entire career without suffering any serious accidents.

Care of the hands is one of the primary problems in horizontal bar gymnastics. In no other activity are the hands subjected to such extreme abrasive action. The initial workouts should be extremely short to give the hands time to condition. Approximately two workouts per week will slowly and methodically condition the hands to withstand the wear and tear of the competitive season.

It's up to the gymnast to be aware of the so-called hot points of the hands during the workout. Whenever he feels his hands becoming hot and tender, he should stop his practice. If this warning isn't heeded, water blisters, blood blisters, or tearing may soon follow.

Should any of these conditions actually occur, prompt and immediate medical attention is demanded. After the hand wound has been sterilized, a protective dressing should be applied for a day or so.

As the new skin begins to form, applications of a sterile petrolatum such as vaseline should be employed to keep the skin soft and prevent future cracking. The use of vaseline or a lanolin-based cream is recom-

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mended for the hands following the shower after practice.

Any callous forming too heavily upon the hand should be kept smooth by the trainer's attention. Many gymnasts lightly rub their hands with emery cloth or sand paper.

A course on fundamentals should be included in the training program of every performer. The timing of the wrist snap and body action on advanced circles, for example, can only be mastered after basic training on such fundamentals as the hip circle, the free hip circle, and the half giant circle.

Only after good schooling on the fundamentals can the gymnast safely advance to the full circles. In learning new stunts, it's not only important to know what to do and how to do it, but what to do in case of mistakes or miscalculations.

The overhead mechanic is highly recommended for teaching the giant circle. Also of value is a relatively new horizontal bar rigging which has a ball-bearing rig attached to the bar. The rigging spots the performer and yet permits him to circle the bar with the utmost freedom.

Satisfactory spotting of any flank movements over the bar can be managed by running a single rope up to a single block and down to a ring on the back of the safety belt. The rope in the spotter's hands, while safeguarding the performer, will also stay out of his way.

All vaulting movements and many of the fundamental movements should be practiced under the safe conditions afforded by the low horizontal bar

When teaching a beginning class stunts upon the low or high bar, the instructor should fasten a towel or padded material to the bar so that it rests between the performer's hands. This will prevent the boy from striking his face or head directly on the bar in case of misjudgment.

The two spotters stand alongside the performer. If one stays close to the bar and the other some distance from it, they'll be ready to spot the man in case of difficulty.

A safe precaution on the high bar is the use of the hand strap or straps, a wick, or twisted gauze. All these fasten to the fingers and attach to the wrist. This prevents the abrasive action of the bar from injuring the hands, thus permitting longer and more frequent workouts.

The use of benzoin and the soaking of the hands in brine have been tried in different schools, but have never proved beneficial in permitting the performer to work out longer or oftener.

THIS is the second of two articles that Norman (Dick) Holzaepfel has contributed to Scholastic Coach this year-last September he was represented by a splendid piece on fundamental balancing. Dick is the fellow who put the University of lowa on the gymnastics map. When Dick took over the Hawkeye gymnasts in 1948, the sport had been dead for six years. His sterling ministrations produced immediate results. Over the past four years, the lowa gymnasts have posted 37 dual victories against only 7 defeats. Coach Holzaepfel has produced three national individual champions and six runners-up on the trampoline, as well as one runner-up on the horizontal bars. At the U. of Michigan, Dick was captain of the gym team. He stayed on as assistant gym instructor, then put in three years in the high school field. Following a hitch in the Navy, he put in a year at Colorado State College as trainer and gymnastics coach. Then came the call from lowa.

THE PARALLEL BARS

The primary type of strength needed for the parallels is the supporting type. The average child or adult finds it easier to suspend rather than support himself in a straight-arm manner, and this fact should be kept in mind when working with the youngster. The swinging action in a straight-arm support is extremely dangerous to beginners, and they shouldn't be exposed to it until they've developed all the necessary changes in balance and the strength.

Swinging work should be well spotted by students standing along-side the bars. To protect the performer, it's always necessary to reach under rather than across the bars. When the spotter reaches across, he cannot do an adequate job and at the same time exposes himself to injury by the performer. Quite often, one spotter working on the end of the bars can do a more satisfactory job than two spotters.

The overhead mechanic is the only good way of spotting advanced exercises. It may also be employed to spot a man dismounting from the side. One way of doing this is to push the parallel bars to one side and allow the weight of the performer's body to carry him away from the bars while still in the overhead mechanic.

Another method is to have one

rope coming down to the belt on the performer's waist, and allow the one rope to pull the performer away from the bars for the dismount. This also prevents any sudden or hard contact with the mats. The use of several thicknesses of padding again is recommended for dismounts from the bars.

Pirouette actions upon the bar can be safely executed by the learner where mats are laid on each bar to protect the performer's legs. If the boy should swing down before an action is completed, he will strike one of the mat-covered parallel bars.

Many stunts such as the back somersault, the front somersault, or different balances can be safely practiced on the low or the medium parallel bar. The performer has a sense of safety here and can also be adequately hand-spotted by (class) mates standing alongside the bars.

It should be remembered that the hands take about as much of a beating as they do on the horizontal bar, it's wise to plan the workouts on these two apparatus so that they don't conflict.

THE SIDE HORSE

The side horse seems to be the apparatus affording the least danger of accidents. It can be used for support as well as vaulting work.

The performer is usually spotted by one student standing directly ahead of the vaulter and spotting him under the arms as the vault is executed. The vaulter may also be spotted by two men, one standing on either side of him as he comes over the horse.

When the performer is working in the supporting position, the only possible danger positions are during time circles when the feet or legs are parallel to the floor. At this moment, the performer can easily shift his weight upon a single point or upon one hand while executing a pivot and thus be unable to get his legs or feet down for a correct landing. This may also happen while executing dismounts.

It's up to the spotter to be in such position at the side and rear of the performer that he may step in and support him under the arms, thus preventing a rather nasty fall.

The gymnast must keep his hands in shape for work on the side horse. The cuff of the hand just below the wrist often becomes irritated during excessively long workouts, particularly at the beginning of the training period in the fall.

The early practices should be of short duration, and the use of chalk will prevent the gymnast from slip-

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364-374 N. MARQUETTE STREET FOND DU LAC, WISCONSIN ping either upon the pommels or when working on the ends of the horse. At the same time, the gymnast should avoid the practice of using too much chalk. This goes for work on most apparatus.

Gymnasts working on the side horse are particularly susceptible to the ailment known as "wrist splints." This is very similar to the shin splint suffered by the track man and basketball player, and seems to develop particularly after considerable pivoting over one arm.

The effect is a considerable weakening of the forearm along the ulna and also considerable pain in this area. Rest and heat are highly recommended and seem to be the only effective remedy.

It's also wise for beginners to wear long trousers, since they're particularly prone to develop leg burns from sliding on the side horse.

THE LONG HORSE

The beginner's approach run should be very moderate in nature. The take-off from the board should be practiced many times without trying for any particular distance.

The eyes should be trained on the take-off and at the point of placement of the hands. Slipping may easily be prevented by the use of moisture and a little resin on the bottom of the soles.

The actual vault should be done just part way and then stopped. The beginner should, for example, approach, take-off, and straddle vault to the middle of the long horse, then stop. He should observe good form and good balance before attempting to proceed any farther along the horse, This control and balance will help the performer make up his mind and be sure of himself before attempting the whole vault.

Using the straddle vault again as an example, the performer signifies his readiness to the spotters, who stand alongside the neck end of the horse and grasp the vaulter under the shoulders as he attempts his first vault. Some instructors recommend only one spotter at the front end or neck end of the horse. This one man must rock or step back out of the way while spotting the vaulter as he comes over the neck. While the spotting is certainly necessary and effective, the buildup stunts are essential for safety purposes.

The instructor should make a point of advising the students that whenever they're sure they won't complete the vault, to get their hands off the long horse to avoid injuring the thumbs or fingers. Up-

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Outdoors and indoors • Send for Free Catalog JAYFRO ATHLETIC SUPPLY CO. Dept. S. Box 1065, NEW LONDON, CONN. on landing, it's also advisable to lean forward in the direction of the vault and not permit the back to be snapped by a back whip resulting from a backward lean.

Another safety hint is not to attempt to run too fast when first learning the approach to the vault. The vault may be executed, but the momentum may carry the gymnast beyond the point where he's able to get his feet safely down to the floor for a correct landing.

GENERAL SUGGESTIONS

Among physical educators today, there's a general feeling that a daily play period is necessary to promote physical and mental relaxation. Gymnastics can fall into this category very easily. However, it must be practiced wisely and intelligently with the conditioning being part of the safety approach. The sport differs slightly from many other activities in that it's necessary to practice the parts of a total figure many times to assure safety when performing the whole figure.

Gymnastics may therefore be categorized as a disciplined rather than an informal play period. This particularly applies to competitive gymnastics. But it still leaves the field of elementary gymnastics open to the physical education program. The unskilled can perform these simple stunts without too much danger and with great physical and mental enjoyment.

It must be understood that the use of spotters and spotting devices doesn't indicate a lack of courage, but merely a wise and intelligent approach to the learning of difficult stunts

A spotter should certainly be used whenever a gymnast is attempting a total routine for the first time. More endurance and strength are necessary for the execution of several stunts in succession than the performer may realize.

Spotters should also be used whenever the accomplished gymnast is working on a different piece of apparatus or trying a new stunt for the first time.

It's felt that spotters should be employed even during competitive meets, when deemed necessary.

Through an intelligent approach to gymnastics and an awareness of the dangers involved, accidents and injuries may be reduced to a bare minimum. But even when practiced under the safest conditions, gymnastics can always stand on its own as one of the most interesting sports in our gymnasiums today.





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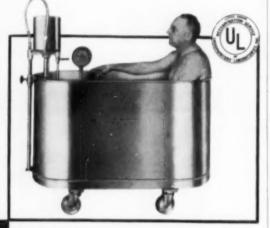
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Coaches' Corner

(Continued from page 61)

Ed Diddle, hoop coach at Western Kentucky, was a blocking block at Centre College in the days of the famous Praying Colonels. He liked the idea of praying before a game and brought it with him to Western Ken-

Diddle had a new captain one season and before the opening game. he tried to explain how to pray right." He said, "Say a nice, modest, humble prayer, but don't ask for victory. Just ask that you be able to give a good performance."

A trifle shaky over this strange assignment, the captain walked into the team huddle and began the prayerwith Coach Diddle standing off a few paces. All was quiet for a few moments, then suddenly the crowd was

startled by a loud yelp: "Damn it!" roared Diddle, crashing into the huddle, "I told you not to ask for victory!'

After devoting his coaching life to proving that a straight line is the shortest distance between two points, Frank Leahy is taking a rather devious line in his new journalistic career.

At the end of the 1955 season, he did piece for Life in which he selected five players from small college teams who "rank with the best football players in America and (who) in my opinion could earn a position on any team in existence.'

In his next piece, for TV Guide, Frank selected his All-American team -and named none of the players he picked for Life! Well, that's Life!

The new Coach of the Year, Duffy Daugherty, steered to a No. 2 national rating a team that had been scorned by every pre-season board of experts. In 1954 Duffy's first Michigan State team won only 3 and lost 6. This year they lost only I game.

Among other qualities, Duffy possesses a keen sense of humor. Addresssing an alumni group recently, he said: "The 1954 team was mine. It lost more often than it won. The 1955 eleven, beaten only once, undoubtedly

Red Sanders is seriously disturbed by the wave of campus episodes in which students have been hanging coaches in effigy. "We have a very mature student body here at UCLA," he says, "and they don't believe in fooling around. When they get around to hanging me, they'll probably go all the way.

When Bob Porterfield was traded to Boston, he announced he was glad to leave Washington because he couldn't get along with Charlie Dressen.

Informed about this remark, Dressen waxed indignant. "How could Bob have said he couldn't get along with me," he snapped, "when I never spoke a word to him all season?"

Bobby Williams, one-time Notre Dame All-American, saw so little action with the Chicago Bears last season that he was called "the only bullpen pitcher in the pro football league."

Before the Ohio-State-Michigan game, Ernie McCoy, Jr. simulated Hopalong Cassady in the Michigan practices. The Wolverines stopped him cold, pleasing the coaches no end. After the game, which Ohio State won 17-0, Ernie's dad phoned and asked what happened.

Young McCoy smartly answered, "The real Cassady showed up."

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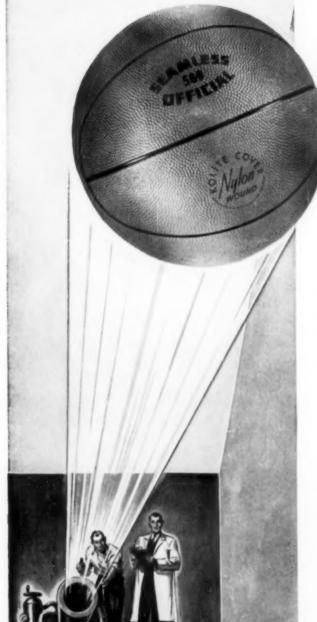
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